DOMESTIC ENGINEERING

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Suggestion:
Cut out; frame neatly; put in show window; change weekly.

BUILD FOR YOUR CHILDREN.

In erecting buildings, from which, by the very nature of things, your heirs are to receive their income and support, too little consideration is given to the quality of plumbing and heating goods entering into them. Builders should remember they are building, as a rule, for a period of twenty-five or fifty years, and should use material which will give satisfactory use for that length of time. Cheap, shoddy, so-called competition goods will not answer; but reliable material, bearing the maker's name and guarantee, will be an investment which will pay dividends in reduced cost of upkeep.

Obey the Laws

The journeyman plumber sometimes prides himself in dodging the regulations because in doing so he fools the plumbing inspector. In doing this he makes several mistakes. The regulations in regard to the weight of pipe, methods of making joints, repairing leaky and cracked pipes, and many other things relating to practical details of work, were all made by practical men, by first-class plumbers. The rules were formed to insure first-class work and as they were making the rules for themselves they did not make them in such a way as to increase the cost of workmanship.

* * *

In olden times when plumbing rules were new, the journeyman said to himself that there was no reason for putting three-quarters of a pound of lead per inch diameter into the hub of an extra heavy pipe. So, with some old newspapers in the bottom, and oakum on top of that, he filled up the hub with a thin ring of lead approximately flush. This took rather more time than putting in the ordinary quantity of oakum, the thin ring of lead required very careful calking and sometimes had to be taken out and poured a second time, but in the end he effected a saving of one, two, or three pounds of lead according to the size of the joint. This gave him great satisfaction.

* * *

On one occasion where work of this kind had been done it was brought to the attention of the master plumber who happened to be of the type known as a "skin." He had no love for inspectors or rules, but he remarked in regard to the work: "Didn't the fool know that while he was saving 12 cents worth of lead he wasted 25 cents worth of time." There are a great many such "economies" in plumbing and heating. Savings can be made in the expenditure of material, but they cost more than they are worth. With a thin ring of lead, unless unusual care has been taken with the oakum, the lead will sink in places, being driven down before it expands so as to fill the joints. Where a line is subject to a water test, a few such defective joints will cost perhaps twice as much in time as if they had been made in the regulation way.

* * *

Cracked lengths, cracked hubs, blow holes, that cannot be plugged and other similar defects are often put in place with the hope of getting them passed by the inspector. If they are found the usual song is, "We didn't see them," or, "We hadn't noticed them." Such an answer would pass muster if the blow-holes were not always carefully turned so as to bring them out of sight. It is far better for the master plumber frankly to condemn such pipe and refuse to put it into a job than it is to run the risk of having to take the defective pieces out. It is always the case that good morals and good business are coincident.

James Guy.

The Summer Residence of Mr. Murry Guggenheim at West End, Long Branch, N. J.

By Lucy Cleveland

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It was in 1817, as John Keats, the celebrated English poet, sat at the window of his thatched cottage directly looking out upon a certain stately residence—the historic grandeur of Carisbrooke Castle, Isle of Wight, the one-time residence of feudal lords and home of Charles I., king of England—that the poet wrote a line which is eternal among the murmuring laurels of the Immortals,

"A thing of beauty is a joy forever!"

This opening line of *Endymion* which like a newborn star blazing into the wake of the moon arrested the attention of the world, was written in the immediate presence of the ivy-vested gateways, the round towers, the gleaming brook, the lawns of primroses, which are Carisbrooke Castle. The writer who has lived in England's midsummer near Carisbrooke Castle, wonders what the keenly sensitive brain of the great English poet would have said—so susceptible that brain to impressions of earth's glories—if today, 1909, John Keats could stand and gaze at the crystal vision of a notable modern residence which has its own gleaming lake, its lawns of roses, its pillared terrace and its historic family,—the residence of Mr. Murry Guggenheim at West End, Long Branch. We doubt not that the lips of John Keats would have struck down a new word to live forever along the shining anvil of the American summer. The writer, moreover, is confident that ere long, contemporary with air ships and the looming into reality of the formidable North Pole, some brain will give the world a work called *The Poem of Domestic Sanitation*. Never yet in all the splendid and stately walks through great houses has the writer encountered such "sanitation," nay, such poetic sanitation, as in the residence of Mr. Murry Guggenheim, of which this paper will treat. Scientific men who will read this article will scarcely credit the amazing beauty that can be quarried from the hard, cold, practical quartz of that appelative "Sanitation." May this paper awaken other men into going and doing likewise—as far as their pocket allows.

Before we enter the house, stand one moment and look at the terrace—the garden front—which commands the lake and the lawns. The house is but two stories high, but the grand dimensions of serene symmetry and which spread on either side in two imposing semi-circular arcades with loggias at either end, give the proportions of a palace. There is the sense of pure beauty in this architecture, of entrancing charm, but a sense of law, of restraint, that is matchless as a Greek masterpiece. The house which is by the celebrated architects Carrère & Hastings, New York City, is purely individual, it is a creation. It has not followed in slavish imitation "epochs" or "periods" in the nomenclature of Art. It stands a white-gleaming pearl from the forehead of creative genius. This house took the Gold Medal at the Architectural League in 1907, even though its renowned architects did not enter the competition. The house is built entirely of white stucco. "The incantation of *whiteness* appeals with great power to the soul," says Herman Melville. That visible absence of color is the concrete of all colors, and is a segment of the arc that is the Milky Way where moves the dominion of Iridescence. The writer recalls being deeply moved, in a way she could not account for, as she stood gazing at this wonderful *white* vision. The subterranean miner that works in us all, how can one tell whither leads his shaft by the ever-shifting, muffled sound of his pick? What skiff in tow of a seventy-four can stand still? I gave myself up in abandonment to this white vision, that one word "white" suggesting everything of mysterious pre-eminence, from Siam's standard to a moon-clothed deck in the Arctic silences where men are the prisoners of power. As one stares at this dazzling residence reflected in the lake, every pillar and portico and pediment, and the vases along the terrace, and the orange trees and the delicate semi-circular balustrades that surmount the arcades repeated in the turquoise mirror of waters, one is inclined to shield one's eyes, and to ask in rapid questionings, "Is this house real? Why, it cannot be real! And you tell me that this house which seems just born from a snow-ball has stood there since 1905?" Yes, very well for us to enjoy this vision of a house which so lords it over us; in

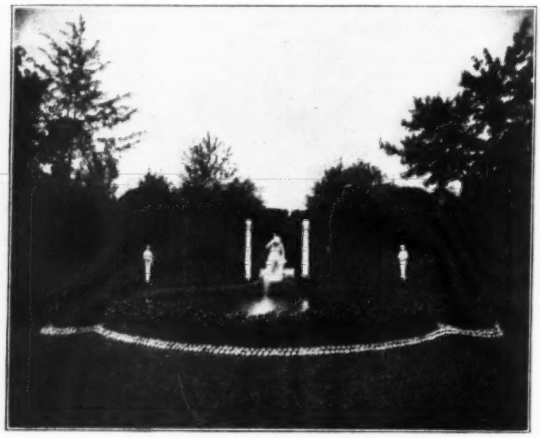
the splendid domain of the interior we will, too, see what are the perennial, perpetual means to an ivory end.

THE SUMMER RESIDENCE OF MR. MURRY GUGGENHEIM AT WEST END, LONG BRANCH, N. J.

The house, with the lake and grounds. The model of Mr. Guggenheim's houseboat floats on the lake. The house was designed by Architects Carrère & Hastings, of New York City.—Photograph by Chas. A. Dunlap.

The driveway approach to this superb residence is through wrought iron gates supported on either side by white piers crowned by classic vases. The driveway leads to the entrance front of the house. Here are other gardens, classic gardens. Here is the Court of the Four Seasons with its marble statutes of nymphs and happy nereids bending to a murmuring fountain whose dark background of twelve feet high hedges of evergreens and cedars

transports the beholder to the Boboli Garden of Florence. The dignity of the porte-cochère is magnificent. You feel instantly in arch and pillars and lines that within dwells not only a master in the art of stately ceremonial, but a man who wears with easy distinction that one great word,—*a Gentleman,* whose text has been wrangled over for centuries, and which has to have a heart in it to pass muster before the Sanhedrin of all Time. We go through the grand entrance-doorway which leads into the hall. This spacious hall, however, is but an avenue



IN THE SUMMER RESIDENCE OF MR. MURRY GUGGENHEIM.
The Court of the Four Seasons. Facing the grand entrance Porte Cochére.—Photograph by Chas. A. Dunlap.

to the still higher and more beautiful level to which steps on either side ascend. Beyond these steps is perceived the Grand Staircase ascending to the second story. The steps from the hall, and which have the *grand air,* lead to a corridor of Ionic pillars and marble floor and busts of the masters of thought of France. Why of "France," you say? Mrs. Murry Guggenheim is a Frenchwoman of distinction, and within her veins is the blood of ancestors "of that great nation that is accessible to the sudden sway of disinterested sentiments, and which resolves upon acts that lead the van and decide the fate of generations."* Truly to Madame Guggenheim may be applied the words of Alfieri, *"J'ai vu les grands, je n'ai pas vu les petits."*** We pause, with intention, to say this is an article on a notable residence which ranks among one of the greatest feats in the whole world of great names and their puissant skill; for to an American "lordes" is due many of the wonders we are to behold in scientific sanitation that keeps this house the wonder-pearl it is. Mrs. Murry Guggeheim will have no conventional housekeeper for form's sake. The housekeeping of this superb residence is daily superintended by Mrs. Murry Guggenheim.

The quiet voice of vigilance for the charm of home seems to be a more welcome sound than the spiritual pneumonia cough of the Suffragette.

Already, standing in the corridor of the Ionic pillars, see the splendid plan of the house. The living room where Mr. and Mrs. Guggenheim receive us is the central room of the majestic suite that opens on the Grand Terrace. It is a room that is palatial; a room that could welcome kings as guests, a room where great names on the world's tablets of the illustrious have been received. The room is paneled with black walnut to the ceiling. The eye catches sight of a magnificent portrait over the large open fireplace. It is the portrait of Miss Lucille Guggenheim, the daughter of the house. In this room the immense French windows open directly on the marble terrace and the enormous smite of beauty of the lake, and of lawns like the core of an emerald. From the billiard room and from the dining room on either side of this imposing "living room," one may pass into the semicircular arcades where, at each end of this superb garden frontage, is a large rectangular room entirely open to the air, and which forms an enchanting spot where coffee may be served, or where one may enjoy the last tints of sunset along the land. All these dream-like porches are furnished in ornamental willowware, in different colors.

But scarcely are we prepared for the entire gamut in the scale of domestic sanitation that awaits us as we are given into the kind ciceroneship of Mr. Guggenheim's secretary who will conduct us through all the further wonders. We enter upon the working quarters of the house from the rear hall, from which the back staircase leads down to the basement. Here is perceived the remarkably able architectural plan for the working quarters of the house. This remote west wing is given up to the kitchen, pantries, etc. In the remote east wing—as we shall presently see—is located the men's sleeping quarters. The maids' quarters are in the western wing in the second story, directly over the kitchen, pantries, etc. Immediately, in this rear hall, is heard the long-echoing note of the most extraordinary domestic sanitation that can be conceived, nay, beyond phantasy. The entire walls

*Guizot.
**I look only upon that which is great; not upon the trivial.

of this rear hall are tiled with porcelain; as are the walls of the rear stairway. The floor is concrete, and tiled over the concrete. In every room of the working quarters where food is kept, the threshold of doors are of marble. The doors are hardwood.

The Servant's Hall.

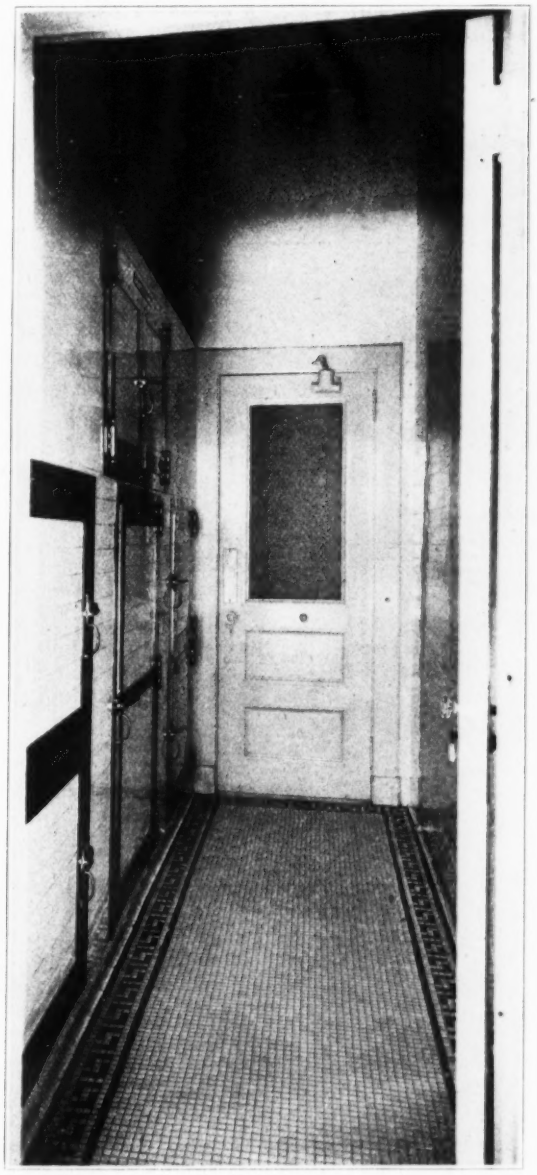
What is that long broad shimmering—a sparkle—on the centre table in this dining hall? a spread of water? surely not a leak in this house? The long centre table *is covered with plate glass.* And see yonder—the windows sills *are of plate glass!* The shelves of the wide closets are of plate glass. The doors—of a wide bar of glass on either side of the handle—have handles of cut glass. The white dado all around this hall is of hardwood. The sink in this servants' hall is of silver plate, and has a Pasteur filter attached to it. And this is just the servants' dining hall. What are we going to see next? Keyed up as we are by this extraordinary domestic sanitation, can the rest keep up with it? Indeed, yes. The corridor that leads from the servants' dining hall to the refrigerator room and to the kitchen has walls of porcelain tiles to the ceiling. There is a toilet room leading out from this corridor, in which there is a solid marble lavatory. What a dazzle of white the corridor is, a glistening, a sheen. It is again the procession of the enchanting pallor that queens it over other residences, as Chinese White upon the gayest palette ever set.

The Refrigerator Room.

We reach the refrigerator room. This is an enormous built-in structure, whose walls are of porcelain tiles. The refrigerating plant was put in by the Lorillard Co. The waste is cared for by a specially designed water system of funnels with hot and cold water supplied, so that the same can be flushed, the drains emptying into porcelain sinks set for that special purpose. Ice is not made on the premises. There are six large compartments in this refrigerator room, each, air-proof, each gleaming white in its porcelain tiled walls. The immense upper compartment is reserved for ice.

The Kitchen.

Directly behind the refrigerator room is the kitchen. Its broad windows look out upon gardens. Again the clarity of walls and of furnishings. Here also the walls are of porcelain tiles to the ceiling. The large center table is marble-topped. The closets *are lined with plate glass,* and they have plate glass shelves. The female chef who was at work was attired in white linen from head to foot, and we noticed the look of health, exuberant health, in her face. The range in this ideal kitchen is a



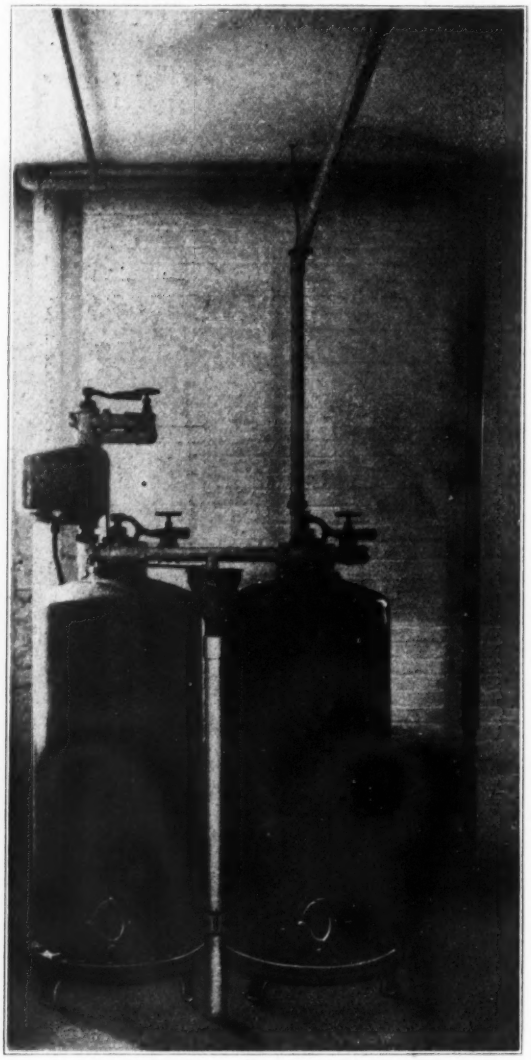
In the Summer Residence of Mr. Murry Guggenheim. The refrigerator room.—Photograph by Chas. A. Dunlap.

Duparquet, Huot & Moneuse, and was especially designed for this house. It is a gas and coal range. The system of broilers, and the ventilation apparatus inside the Dutch hood, is the same as is

designed for the most elaborate hotels in the world where fine cooking reigns, and where the odors of cooking must not escape to other parts of the working quarters.

The Butler's Pantry.

This is not a "pantry" in the ordinary sense of that term, and to be squeezed in between paragraphs on more important apartments. This is a room. It is a room that speaks of dignity, culture and ceremonial banquets. Here, too, the walls are porcelain tiled to the ceiling. The closets are lined with plate glass, and the shelves are of plate glass. The sink is of solid marble, with faucets of silver plate. We notice in this large room a large refrigerator for food, fruit and wines. We observe an electric plate warmer; and there is a long distance telephone over which the master of this superb house can give his orders in his office in New York. There is a novel, patented device for the glass rimmed doors; they have a hinge which causes them to close noiselessly.



In the Summer Residence of Mr. Murry Guggenheim. The filtration plant.—Photograph by Chas. A. Dunlap.

The Dining Room.

Here we strike the scale of connected sixths—as a musician would say—in the musical symphony of color in domestic sanitation. This dining-room begins the faint charm of tints, so delicate as to be a dream, so grateful to the eye, so positively helpful to digestion. There are other enormously important attributes of the body to be fed while mere "eating" is carried on. In the *repose* of the tints in this dining room we feel that French taste alone has dictated it. The whole scheme of the room is a faint yellow. One seems, in this room, to eat amber. The lights are thrown on from a corridor between the butler's room and the dining room. The walls are paneled wood to the ceiling. The built-in porcelain closets have plate glass shelves, the delicate glass and china like bubbles of foam across a rainbow being shielded by pale yellow silk curtains. The floor is hardwood; and its large rug was especially made in Scotland for just this room—the pattern being subsequently destroyed. Note the large open fireplace, which means ventilation, breathing, health. On the other side of the stately dining room we find the billiard room. It has an immense open fire place. This room is also tiled with chestnut to the ceiling. A toilet room opens off this billiard room, with solid marble lavatory, the pipes and overhead tank being celluloid covered.

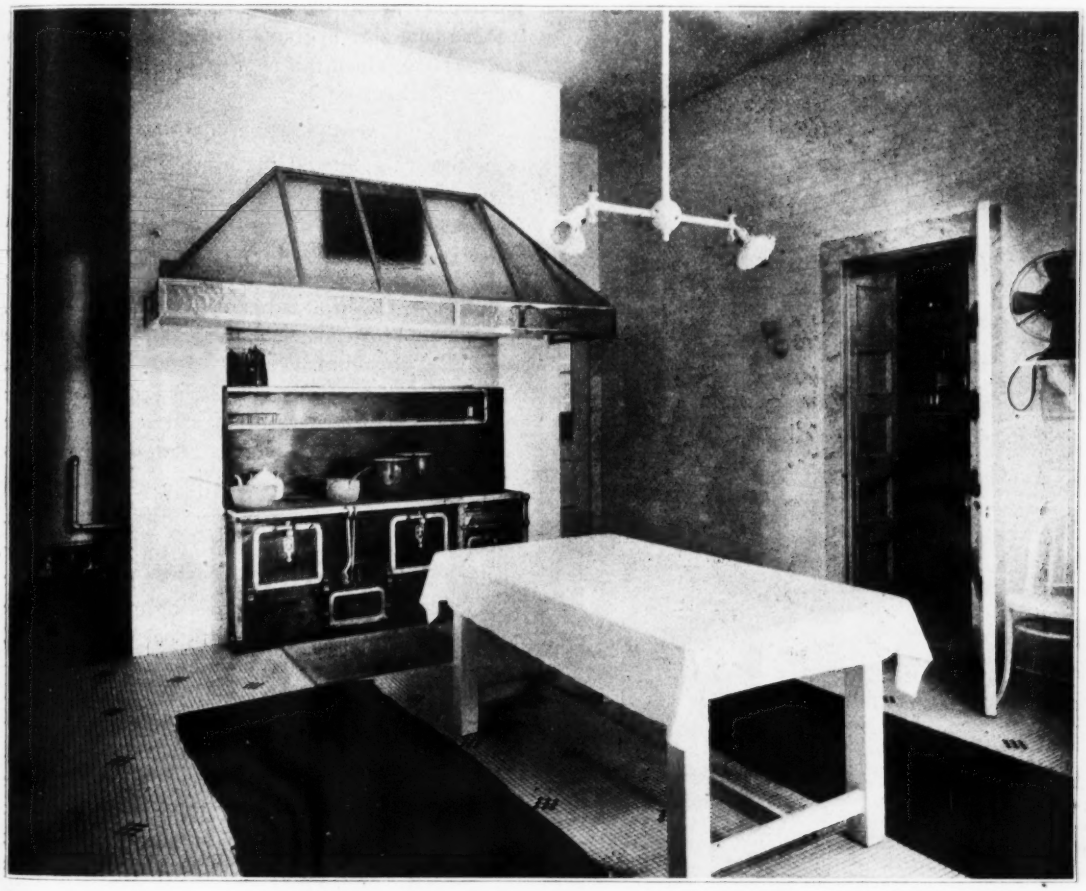
The Brush-up Room.

Unique in the history of modern dwellings of sumptuous intricacy in domestic sanitation, is this brush-up room in the Guggenheim residence. In this room there is a barber's chair unique in its sanitary devices. The chair is cane seated; and has a cane back. It is mounted in nickel plate, and set on metal legs. A toilet room opens off this brush-up room.

The Plumbing Installation.

The plumbing throughout the house was done by the David Buist Co., Bernardsville, New Jersey, formerly of the Rosman Brackett Co., New York, and of the James Muir Sons & Co., N. Y. The water supply for the house comes from the Tintern

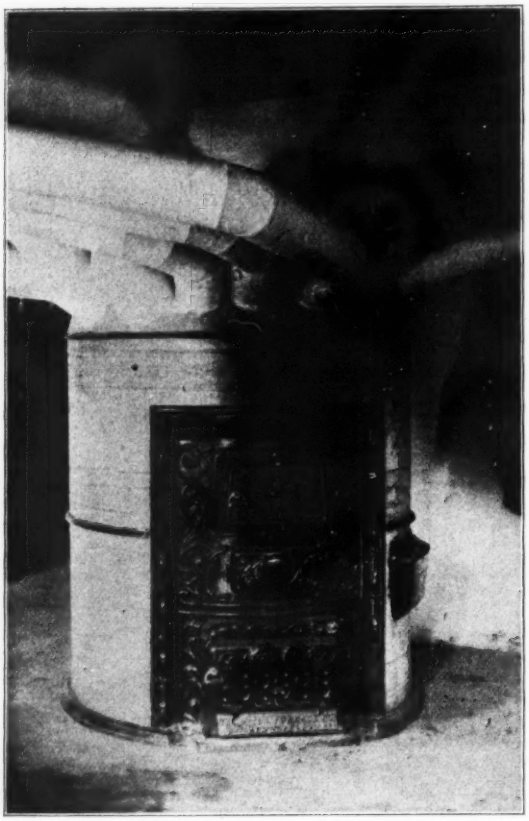
Manor Water Works at West End, N. J. The water is solely derived from artesian wells. The water supply system consists of the following: a four-inch main is continued in to the house from the company's mains, and passes through the filtering system which we presently shall see in the basement (this supply is for the bathrooms, for the drinking water, viz., for the whole house). The heater. Any fixture or group of fixtures can be controlled independently from the cold and hot water drums in the boiler room, the valves being carefully tagged to conform to a chart, so that any attendant in the house—or a maid—could in case of emergency cut off the supply. All the exposed piping, valves and trimmings throughout the bathrooms are silver plate. The storm water drains



IN THE SUMMER RESIDENCE OF MR. MURRY GUGGENHEIM AT WEST END, LONG BRANCH, N. J.
The kitchen, with light walls and furnishings.—Photograph by Chas. A. Dunlap.

entire system then runs to a pressure drum; from that pressure drum it is distributed through independent pipes leading to each group of fixtures throughout the building, with a 3-inch supply to the hot water drums which furnish hot water to all the bathrooms. There is also a separate hot water supply for kitchen and laundry purposes; this is taken off independently from the cold water pressure tank, and heated by passing through a special tank from roofs, plazas and porches, lead into a separate system which is disposed of in the estate for the irrigation of the grounds, and are arranged to supply the lake or pools on the property. Particular attention has been given throughout to the comfort and convenience of the service portion of the house, the laundry and kitchen being equipped with every possible device to lighten labor, and to secure the comfort of the help. The ventilating system of

the kitchen was installed, under Mr. Buist's directions, by the great chimney experts, the John Whitley Co. While it is probable that in this house there is the most perfect arrangement of plumbing that could be devised, it is so simple and satisfactory in that it could be applied to a mansion on a lesser scale where the highest degree of comfort and sanitation was aimed at. It is practically automatic, and fully in the control of the class of help necessary to the running of a first class American home.



In the Summer Residence of Mr. Murry Guggenheim. One of the great heating furnaces.—Photograph by Chas. A. Dunlap.

It is also quite possible for Mr. Guggenheim to divide up the system into units, so that a comparitively small part of the residence can be used independently, such as would occur if this house were left in the charge of a caretaker during an extended European trip. No storage tanks are necessary in the building, as they have a duplicate system of mains, so there is no probability of a break-down unless the entire waterworks system of West End should collapse. The property being situated on the corner of two wide avenues, each main can supply all or any part of the building independent of the other by simply opening or closing a valve.

The Fire System.

The fire protective system was installed by the David Buist Co. It is connected with the two 4-inch mains, with a system of stand-pipes and hose nozzles at various parts on every floor. There are also innumerable hydrants throughout the grounds and terraces which can be used for fire purposes or for irrigation.

The Men's Sleeping Quarters.

In the wing beyond the brush-up room are the men's sleeping-rooms. The writer has never seen such quarters for the help. The floors in each bedroom are of hard wood, rounded at the corners (there is not a carpet in the house); the walls are hard wood; the bedsteads are white enameled iron, individual bedsteads, two only sleeping in one room; the dressers have the whole top covered with a glittering slab of plate glass; in each room there is a marble lavatory with hot and cold water; the bathrooms have tiled floors and walls; the toilets are of the latest sanitary devices.

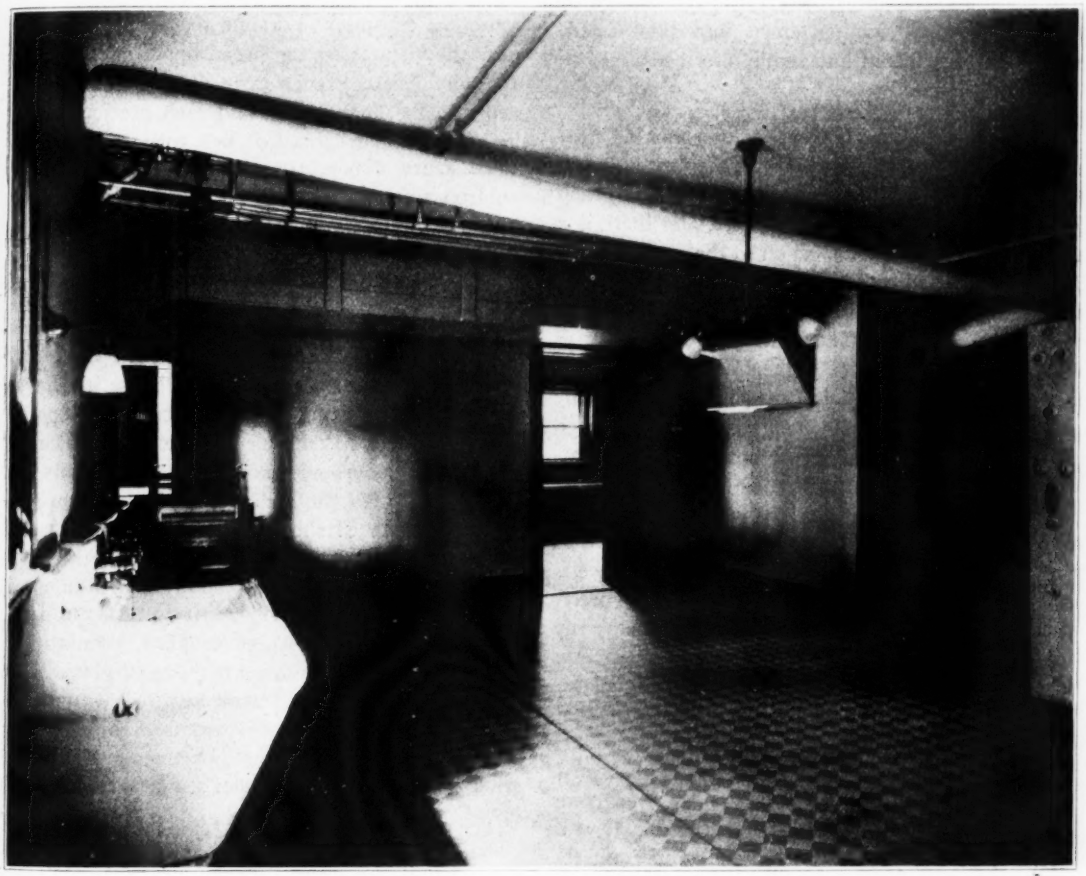
The Basement; Engineering Quarters, Etc.

We descend to the basement by the rear stairway already alluded to—of the porcelain tiled walls. The basement where are the engineering quarters of the house, the laundry, etc., is a little below the ground, therefore it was necessary to waterproof it throughout. We perceived immediately the healthful odors of fresh air, and how light and dry and agreeable the atmosphere was. There is full sweep of air along the wide corridor which runs from one end of the basement to the other with doors at either end. The floor of the basement is concrete; the walls are of white cement. The laundry abuts on the wide corridor, and the furnace rooms, and the boiler room, and the valet's room, and the wine closet.

The Heating System.

The heating system was put in by Adolph Grant, New York City, who also did all the magnificent tile and marble work throughout the house. The heating system is unique in some particulars as the reader will see. There are four furnaces in the cellar. The house is heated by warm air. The air is taken from the street, and passes through the furnace into the various rooms. In mild weather, say in October, when the temperature is 50° Fahrenheit,

one furnace answers. When the temperature is 40° two furnaces are used. In a zero temperature, the four furnaces are in use, and so regulated that a temperature of 70° can be obtained. There is an absolutely even temperature throughout the house and halls. For ventilation, one foot of air comes in; one foot of air goes out. The air is taken outside into the inlets by means of large galvanized iron conduits, in bulk about one-third less than the outlets. The outlets are in the various rooms and corridors. This ensures a plentiful supply of moderately warm air which naturally is better than a meagre supply of super-heated air. By the position of the pipes leading from the head of the furnaces the flow of warm air is regulated to suit all points of the compass by actual test of the anemometer. There we have a brass close wire mesh which keeps out foreign matter (birds, mice, etc.), placed slightly in from the inlet of the street air. The advantages of this system of heating over the radiators which are placed in rooms to be heated either by hot water or steam systems is two-fold: (1) it carries off the exhalations from the skin, and the carbonic gas from breathing, while with a radiator in a room the air is being heated and reheated over and over again, especially in the modernly constructed house where we keep our windows sealed tight, and where we do not see the old-fashioned open fireplace. (2) The furnaces can be checked at will when sudden changes in the temperature occur; and this is not so easily obtainable by other modes of heating.



IN THE SUMMER RESIDENCE OF MR. MURRY GUGGENHEIM AT WEST END, LONG BRANCH, N. J.
The laundry, an immense and well-lighted room.—Photograph by Chas. A. Dunlap.

There is one large boiler room; and two boilers, one for hot water for the bathroom supply, and one for the service portion of the house.

The Sewage Disposal.

The plumbing system throughout all the waste, vent and soil lines is of wrought iron pipe, galvanized, with special pattern drainage fittings. The entire drainage system of the house is connected to the most carefully planned sewage disposal system at a considerable distance from the house. It is the Waring system of sewage disposal. The pipes lead into a huge cistern near the stables, the sewage of the whole house coming down into this cistern where it is distributed into septic filter beds.

The Laundry.

The laundry is an immense room situated near one of the doors that open on the rear gardens. A large window directly opposite the door gives grand ventilation. The floors are concrete, and there is a floor drain with trap connection to the sewer. There are four porcelain tubs, and the washing is done by the old-fashioned hand-board—the most effective system in the world. The laundry is equipped with special fixtures installed by the Federal-Huber Co., New York City; and it is further supplemented by an interior drying system furnished by the Chicago Clothes-Dryer Co. There is a coal range for heating irons, and an electric ironing apparatus. Here again in the laundry even we see the plate glass window-sills which so astonish one everywhere in the working quarters. The outside drying place is unique. You pass through a porch where are pretty seats and tables for afternoon tea for the help; you come to a big bower formed by hedges of evergreens and arbor vitae—this is the outside drying place! The hedges are eight feet and more in height. The gayest lawn party sweeping past from the terraces would have no idea of this pretty clothes-yard. What sun and air and fragrances from evergreens does the household linen get! It seems to the writer that this idea was wafted right from the slopes of the Vosges mountains in France where the writer as a girl was taught to take care of the household linen.

The Garbage Closet.

The large garbage closet in the cellar *has porcelain tiled walls*. It has a large window for ventilation; and a faucet with hose for flushing the floor and walls.

The Valet's Room.

In the basement is the valet's room, with toilet and marble lavatory. A small door at the baseboard of the west wall gives access to cleaning of the chimney. This avoids the stopping at each floor to get at the trouble. Beyond the valet's room is the wine cellar. In the largest of the great furnace rooms there is a large bathroom and toilet, of walls of porcelain tiles and marble lavatory. This bathroom is placed near the doorway where currents of air sweep in from the gardens.

Ascending to the first floor, and going on up the Grand Staircase, we reach the second floor of the house. This floor is given up to the bedrooms and bathrooms en suite. For one second we pause to enjoy the vista along the broad upper hall, an aisle of beauty where French taste dictates. We get a peep into the linen closet, and each precious package of household damask is tied with its own individual azure ribbon. O France! in what infinite cauldron where float the starry archipelagoes called ART wert thou baptized at the first.

The Bathrooms.

The bathroom fixtures and the tubs and the marble lavatories throughout the house were made by the Federal-Huber Co., New York City, and were all of special design for this house, the lavatories especially being of marble cut from special blocks of Blanko-P marble imported for this residence. The floors are mosaic tiles; the walls are porcelain tiles to the ceiling; the bathtubs are of solid porcelain, of the Roman pattern, with solid porcelain feet, and with fixtures at end of the bathtub. The overhead tubular showers are mounted in silver plate, with oil-silk curtain. All the bathroom accessories are of silver plate, even to the sponge receptor. The towel bars are of glass. The toilets are the overhead tank covered with celluloid, and with celluloid covered flush pipe. Even the fixtures in the servants' apartments are of the same quality as in the master's and in the guests' rooms.

The Bedrooms.

In one of her many voyages across the Atlantic the writer had an unusual opportunity. It was that of beholding, in mid-July, a vast "school" of nautilus which had swept up on the currents of the Gulf Stream from tropic seas. It is a very rare sight in the temperate zone. The liner's passengers were in excitement. The nautilus had their "sails" spread. But no outblown rumors of this prismatic cloud across the deep could have given a fraction of an idea of the spell it cast. As the writer surveyed the tinted rooms in Mr. Murry Guggenheim's residence, she could think of nothing but the living interchangeable rainbow that once softly feathered the sea. The splendid suites of rooms, the

family rooms, the guest rooms, all seemed to culminate in one rare beauty of a room—Mrs. Guggenheim's boudoir. The walls paneled in oak have built-in mirrors, and the chandelier is a basket of roses. One guards the remembrance of this room as of a jewel that hypnotizes you, even though it be set in diamond filagree. Suddenly, amidst all this awesome entourage of beauty, the writer's eye caught sight of one of the finest things in domestic sanitation, and one of the most novel. The head and foot of each beautiful bedstead in the family rooms are of cane (open wickerwork). What philosopher in sanitation invented that? Ventilation for linen, for the body while plunged in sleep. It seems the apotheosis of sanitation.

Sanitation in the Stables.

Our cicerone conducts us to the stables which are situated at some distance from the house. What generous efficacies of sanitation are given to these stables! The stable has a floor of concrete with dado of porcelain tiles. On the first floor is the coachman's bathroom and toilet. The box-stalls for the blooded horses have concrete floor, and the walls are green tiles—for the horses' eyes. In the carriage department each carriage floor is decorated in colored sands directly in front of the owner's carriage: "L. G." for Mrs. Guggenheim; "M. G." for Mr. Guggenheim, and the American and the French flags intertwined, etc. This is good Patrick's work, the head coachman, and keen pleasure does he take in it. Upstairs, are the head coachman's suite of rooms, bedroom, bathroom, dining-room, parlor; and each is the same marvel in sanitation, and with the plate glass window sills and glass handles to doors. The garage is a large building, with every outfit in latest inventions.

"Who has once dined his friends knows what it is to feel like Caesar." The writer may stand next year at the gate of the Taj Mahal in India, and at the foot of the marble shrines of the Mogul conquerors of Delhi. But it will all be silent voices in that land of mystery, the dead banquet, and the pang of the Unapproachable. With her arms full of lotus from the lake and roses from the Persian garden, as the writer after luncheon said farewell to Mr. and Mrs. Murry Guggenheim standing on the stately steps of the superb residence carved from a wonder-pearl of genius, her heart was too full for utterance. Only a great poet can voice that day—and its hospitality heaped as do princes of the blood—

"A thing of beauty is a joy forever:
Its loveliness increases, it will never
Pass into nothingness; but still will keep
A bower quiet for us, and a sleep
Full of sweet dreams, and health, and quiet loveliness."

Note: The writer desires to offer her gratitude to Mr. and Mrs. Murry Guggenheim for their splendid hospitality and the permissions given; and to Mr. Wm. Veysey, personal secretary to Mr. Murry Guggenheim; and to Messrs. Carrère & Hastings of New York City; and to Mr. Adolph Grant, New York; and to Mr. David Buist, Bernardsville, N. J.; and to the Federal-Huber Co., New York.—**L. C.**

Good Money in Selling Water Filters

By Chas. B. Starkey.

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With the increase of population in this country, and the herding together of people in large cities, the necessity for pure drinking water, the natural drink of our race, has come to be one of the problems of the day. Many towns and cities are so located that it is nearly impossible to obtain fairly pure water without establishing pipe lines to some place so far distant that the expense ensuing would place a burden upon their children's children in the form of heavy taxes. The question naturally arises, what can be done with or to the water available at the nearest point?

Distillation.

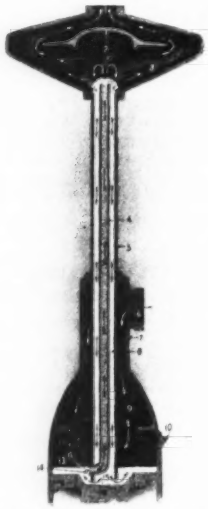
In the first place impure water may be distilled or sterilized. This, however, takes time, and also is an added, unnecessary, constant expense. Besides when water is boiled it has a flat taste. Certain natural gases and salts are removed, which seem necessary to the human system. This condition will result from either boiling or distilling water. There is another method, viz., filtering, and filters, of which we desire to speak.

Filtration.

Filters may be divided into two general classes:

First: Those which purify all the water for an entire waterworks system. These are generally located near the pumping station and are controlled by the waterworks company, or by the city, in case the city owns the plant. Such systems are installed in many towns and cities in various parts of the country and are doing good work.

Second: Those which may be termed individ-



Honeywell Heat Generator in operation

WHAT ARE YOU

Are You a Manufacturer's Distributing Agent or are

Do you figure your work in competition with others, bidding low enough to get contracts and hustling eighteen hours a day to make collections to pay for your labor and materials and charge your loss and gain account at the end of the year "To Gain" in order to make it balance? Are you merely serving as a distributing agent for a manufacturer placing goods of various makes here and there for glory only as you pay, or are you showing a profit on your work?

When you estimate on your hot water heating jobs, do you figure on a 1½-inch pipe to supply one hundred square feet of radiation and the rest of the job in proportion? If you do, you are contributing your time and energy to the upholding of antiquated practice, all because, perhaps, you are loath to break away from "the way your father did" or the way your boss has taught you.

Father and the boss might have been up-to-date and money makers in their time but their time is not now. No one can apply the vogue of the Nineteenth Century to any line of business today and make it show a profit.

Honeywell Hot Water Heating is Twentieth Century heating and the approved system of the present. No large unsightly pipes with this system. No extremely large radiators. No excessive amount of water to make temperature changes slow and unsatisfactory. The limit of temperature to 212° when an abundance of heat is wanted, or a cold radiator here or there in the house during autumn days when the chill only is to be removed.

Honeywell Systems will be found in many European countries, in every state in the Union and every province in Canada, in heating supplies as well as by all boiler and radiator manufacturers of both the United States and Canada.

THE HONEYWELL HEATING SPECIA

ual filters, and can be obtained for and installed on any system or faucet in hospitals, schools, factories, office buildings, apartment houses, private dwellings and other places.

The writer recalls a very striking instance which happened at a hospital built in a city located upon the banks of the Missouri river.

Filtering Muddy Water.

It is a well known fact that Missouri river water is about the dirtiest water in the United States.

A tumblerful of this water, if allowed to stand for several minutes, will show a surprising amount of fine mud and impurities which have settled at the bottom of the glass.

This hospital had experienced trouble in getting pure water for its patients and other uses. The directors wanted to know what could be done, and were unwilling to invest much money until they were **"shown."** A suitable filter was installed, of a size calculated to care for the wants of such an institution, and the test took place. It happened that, due to several storms, the river water was unusually roily. In fact it was fairly brown with mud, yet the filter worked perfectly and the water which came from it was as clear and sparkling as could be desired, and the people were satisfied that **the filter was a mighty good thing, and that they could have pure water no matter what the rest of the waterworks system contained.**

These people had known of filters for years, yet had been too indifferent to investigate. **They needed to be shown and then were easily convinced**

Individual Wells.

Many large hotels and manufacturing plants in various parts of the country go to the expense of sinking artesian wells, simply for the purpose of getting pure water; when, if the plumber was properly on to his job as a salesman and exhibitor, a first-class filteration plant would be installed instead.

Points to look for in Filters.

A good filter for house or office service should possess the following points:

1. It should occupy little space.
2. Should be easily attached to the water service.
3. Should be simple in construction with no complicated parts to be getting out of order.

BUSINESS FOR?

ducting Your Business Your Own Way and at a Profit.

The cutting of timbers and floors to install the small piping of the Honeywell in old buildings is entirely done away with. The Honeywell Unique Radiator Valve has solved this problem and makes it possible to turn off one or more radiators in unoccupied rooms without interfering with the circulation in the piping leading to the valves of the unused radiators.

The Honeywell automatic, thermostatic. temperature controlling device keeps the rooms at any desired temperature night and day, no matter what the weather may be, and saves many trips to the heater as well as many pounds of coal in a year.

27,000 successful installations have proven the Honeywell System of hot water heating pre-eminent and beyond cavil. This superior system of hot water heating can be installed complete for less money than the old style large pipe system which has not the advantage of the mercurial seal, improved radiator valves or temperature controlling device.

If you install the Honeywell System your contracts will show a profit and you will have satisfied customers, who are always perpetual advertisers. We will absolutely guarantee you against failure if you will let us start you right and tell you how to install your first Honeywell job which we will plan for you without charge if you are regularly engaged in the heating business and entitled to trade favors. We will be pleased to refer you to any number of Honeywell plants in your vicinity that you may investigate.

of Quebec, Canada, alone, are over 600 Honeywell installations. Honeywell equipment is handled by all leading jobbers of ted throughout Europe by the National Radiator Company of London, England. For full information address

COMPANY, = WABASH, INDIANA

Honeywell Time Clock Thermostat

4. It should be constructed so that it will last for many years.

5. It should be self cleaning.

Many filters possessing all of the above qualities are on the market, and some of them are so small that one or more can be easily carried in the pocket.

How to Sell Them.

Why not slip one or two in your pocket the next time you go out and fasten one upon the faucet at the kitchen sink of some friend who should have it? **Show the customer on the spot just what the article will do, and make an instantaneous profit.** This little specialty, if worked right **and pushed will more than pay your rent, and each one sold is good for three more in the next twelve months.** One does not have to tear out whole lines of piping in order to install this simple specialty.

It is but a few moments work to place it upon any job in a satisfactory and practical manner, it is needed in thousands of places and hundreds of people would buy one upon the spot, if it was but brought to their notice in the proper manner, by the plumber.

Filters Make Good Display for Windows.

A water filter properly connected and constantly in action in the show window of any shop will attract a large amount of attention. If unconvinced try it and watch the women, children and even busy men stop and look it over. Pretty soon some one will come in and ask the price and there is your chance to get busy.

A Suggested Display.

It is a good plan (especially if the city water is quite dirty) to have two glass bowls in the window. Let one bowl be filled with ordinary city water while the second bowl contains the filtered water. **Anything in a show window that has motion will attract notice.** You will be surprised at the amount of inquiries which will result from installing a filter in the show window, and it can be done with but little cost and will pay many hundred per cent upon the investment.

It Creates Desire.

The apparatus if properly set up, with due regard to effects, will also give an idea of added cleanliness which will at once appeal to the house wife with the result that she wants a filter.

INCIDENTALLY FILTERS PROMOTE TEMPERANCE.

It is not intended to preach a sermon upon temperance in this article, but I want to advance an argument which may be well used upon the man who runs any large manufacturing plant, when one tries to sell him a filter or filtering system.

It is true that cool, **pure water is our natural drink and quenches thirst as does no other liquid.** In many large plants the water is too filthy to drink, and the men simply will not use it for that purpose.

They either bring tea, in the dinner bucket, or go without drink, or drink beer which is obtained either with, or without the foreman's consent. Viewed from any side of the question it is a bad proposition for all concerned. The men lose time; **they will not work hard when thirsty, nor** should it be expected of them. Time is lost, needlessly, and each employe is in a cranky frame of mind. **Why not put on a filter, or install a complete filtration system and give the men what they are entitled to, viz., pure water?**

This is not a temperance lecture, it is only plain, practical, common sense and justice and no employer who has the good of his employees at heart, as well as having any consideration for his own pocket book, will refuse to listen if the case be put to him upon its merits.

APARTMENT BUILDINGS.

It should be easy to sell filtering plants for apartment buildings and hotels, as it is just one more inducement for a larger patronage.

GET BUSY SELLING THEM.

The writer would therefore say that there are filters so constructed that they will do what is claimed for them, and that the plumber who recommends them can "bank" upon their "making good." Therefore why not hustle around a bit and try to corral a few stray dollars before winter sets in? "Domestic Engineering" will gladly give upon request the names of manufacturers of reliable filters who co-operate with plumbers.

A Strange Coin.

Nephew (just returned from abroad)—This franc piece, aunt, I got in Paris.

Aunt Hepsy—I wish, nephew, you'd fetched home one of them Latin quarters they talk so much about. —Boston Transcript.

Boilers with an Unsteady Water Line

(By Phoenix.)

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It is certainly exasperating to fire up a steam-heating job upon which all kinds of time has been spent in order to make it a success and have the boiler show a decidedly unsteady water line; or worse still, no water whatsoever in the glass when five or six pounds of steam or less is raised upon the system. Such a condition is more than apt to rattle a beginner, the average fireman, and sometimes puzzles an experienced steam fitter, until he strikes the solution. The peculiar action of the water may be due to one or more of several different reasons, such as:

1. **The return mains being too small for the job.**
2. **Check valves out of order upon the returns.**
3. **An improperly connected water column.**
4. **The type of boiler may be such that it always "throws water into the steam mains.**

The foregoing are some of the main reasons to be looked after when the water goes out of the glass in such an uncalled for manner.

The height of the steam main above the water level is also considered one of the points in the game.

Right here I want to remark that I have found several instances where the height of the main above the boiler's water line did not seem to cut any ice whatever, as the water left the boiler just the same, even on an overhead system, where the main rose before branching straight to the attic a distance of something like forty feet or more. On this job which has just been mentioned, several radiators never had an ounce of steam in them **until an equalizer was placed upon the boiler.** The job then worked like a charm and everybody was satisfied.

I stated that certain types of boilers generally "threw water." That is, they are so powerful and make steam so rapidly that they will drive the water into the steam mains in such quantities that the water is lowered until none can be seen in the water glass.

I do not regard this as anything against the boiler, as it is a matter which is easily remedied, or can be avoided entirely if attended to before the job is fired up.

The solution is to put an equalizer upon the boiler. This equalizer may be described as a "bleeder hooked up to the boiler at the nearest point where it can be properly connected." The water is apt to leave the water glass at any old pressure, sometimes at a quarter of a pound or less, and then again it may take four or five pounds, or more, to do the deed.

On cast iron sectional boilers, having supply and return headers, it is proper to connect the steam header at the rear end with each of the return headers behind by a pipe the full size of the tapping in the headers. In the steam header place a nipple and tee and let the tee stop so that each of its openings shall look horizontally when the tee and nipple are made up into the back of the header. Into each side of this tee screw pipes which shall drop and be made into the rear of the return headers upon each side of the boiler. This can be done very

nicely by using a couple of 45° ells on each side line, and connecting in the return headers in such a manner as not to interfere with the returns upon the system. Some fitters use only one return header for such a purpose, but I believe that the boiler **balances better** when both sides are used. If the boiler "throws water" and is of a type not having headers, the equalizer may be connected from the main to the return pipe, or if the boiler has an extra steam and an extra return tapping not in use, they may be connected as described, and the result will be that a steady water line will be maintained, **provided the other circumstances I have mentioned do not exist.**

Sometimes, even with an equalizer properly installed, the water will not stay in the glass . In such a case it is best to **examine the manner in which the water column is connected.** It once cost me nearly fifty dollars to find this out. I had an equalizer on the boiler alright, and still, at a pressure of two pounds the water would leave the glass entirely. Checking the fire by throwing on coal, or letting in a little more water would make the water show up all right in the water glass. I experimented some time, figured a little, and came to the conclusion that the returns were too small. So I changed them and then fired up again. Still the water left the glass at two pounds pressure, exactly as it had done before I enlarged the returns. I chanced to look at the water column and began to study. It was connected in the usual manner at the top, **but the bottom was connected with the first section of the boiler at a point about 16 inches** (I should judge) **below the water line, and** the opposite wall of the section, at the point where the water would strike, chanced to receive the effect of a very hot fire. I changed the connections of that water glass and ran the bottom connection into the return main at least four feet away from the fire, and one never saw a better-working job than resulted, and the water level was as steady as a newly-made camp meeting convert.

If the returns are too small an imperfect circulation will result and an unstable water line will be the result, to say nothing of an endless amount of water hammer and flooded radiators, and the sound of rushing water in the mains. In the majority of cases I do not think that the water backs up in the returns. **More steam and water leaves the boiler than can return to it** and it is up to the fitter to **supply sufficient room for the condensation to return.** Check valves will not help the matter at all. They are a nuisance, an impediment, and forever "going wrong."

In regard to the job mentioned in the first part of this article where the boiler "threw water" in an overhead system where the main rose about forty feet before it branched, I would state that the amount of steam carried upon the job before the equalizer was put on was about twelve pounds, as I remember the circumstances. Now this amount of steam **would not flood the system** by raising water, especially when no branches were taken off under forty feet vertical distance. Therefore there must have been conditions in the system which resulted in the forming of a partial vacuum which would explain the rise of the water for the remaining distance in the rising steam supply main, as twelve pounds pressure could not raise water forty feet.

When the job was fired up after the equalizer was installed it worked perfectly upon about three or four pounds pressure, and **every radiator in the building was filled with steam, while all the snapping and hammering of pipes was done away with entirely.**

There are several other causes which will render the water line of a boiler uncertain, among which may be mentioned foaming, dirty water or oil. The remedies for these common occurrences are too well known to need description, but the others will test both the knowledge and patience of the steam fitter and many times his ingenuity in making right the blunder of some careless or unobserving workman. The man who has charge of the plant is apt to be one who has small experience with boilers, and little judgment. Also this same attendant may be a man of irregular habits. Many cracked sections or explosions are the direct result of the ignorance of those having boilers in charge. You never can depend upon what such people will or will not do, and it is always best to so arrange the job that it is impossible for it to go wrong, and **this can be done if the system is laid out correctly and in a practicl manner, just as you would install a job for yourself.**

Questions and Answers

This department is maintained for the use of every reader of "Domestic Engineering." We solicit problems from you and will give them our best attention. In stating your questions please give all of the facts as clearly as possible and when necessary accompany your question with a correct layout of the job.

WHAT KIND OF SEWER PIPE FOR MADE SOIL?

240. Louisville, Ky.—To the Editor of "Domestic Engineering." Sir: What kind of pipe would you advise for the house sewer where it must run for several yards through a made-up or artificial soil, which has been largely created from refuse and ashes, and will have a top soil of good earth? **Z.**

In many places the sewer pipe from the house to the sewer is of vitrified earthenware pipe, but in such a case as this, where the soil is more than liable to settle some inches, we would advise using iron sewer pipe and lead caulked joints, as we consider that the strain put upon the earthenware pipe from the earth's settling would be sufficient to cause damage.

COMPARISON IN VALUE OF COAL AND OIL.

241. Albany, N. Y.—To the Editor of "Domestic Engineering." Sir: I have tried many times and in different places to get some figures upon the cost of consumption of fuel oil, when compared with coal, and if you can furnish me with any, I shall be very thankful.

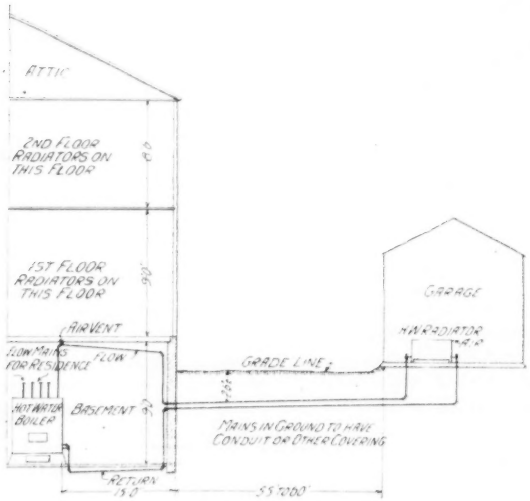
Hudson.

In some tests made several years ago, in Minnesota, it was found that with the ordinary Lima oil, weighing six and three-fifths pounds per gallon, and costing two and one-fourth cents a gallon, and coal that gave an evaporation of seven and one-half pounds of water per pound of coal, that the two fuels were equally economical when the coal was $3.85 per 2,000 pounds.

Coal at $2.00 was 37 per cent cheaper, and coal at $4.85 was 20 per cent more costly than the oil at the price quoted.

WILL THIS SYSTEM HEAT THE GARAGE?

245.—Merrill, Wis.: To the Editor of "Domestic Engineering." Sir.:—We show herewith a rough sketch of piping for a part of a hot-water heating job. We would like your opinion as to whether it would be practical or not to heat garage from house boiler? Do you think piping as indicated in sketch would be alright? or would you suggest running flow main to second floor or attic and then drop down to run under ground? Could you suggest another plan of running flow and return main that



Sketch of part of hot water heating job as laid out by "L.," of Merrill, Wis.

would be O. K.? This run to have separate boiler flow connection—a circuit in itself—Honeywell generator to be put on the system. Height of boiler, mains and radiator, approximately as on sketch.

Any suggestions and advice will be gratefully received, and an early reply also will be appreciated. **L.**

We believe that as laid out, and with a pressure appliance upon the job, as the correspondent mentions, it will work all right. We would suggest that the main and return pipes between the house and the garage be covered with a good grade of pipe covering, and if they are then run in a line of eight-inch tile, they will be found to deliver the water to the garage several degrees hotter than if the pipes are laid in the ground only; besides keeping the pipe from rusting upon the outside.

USE OF IRON CLOSET BENDS.

Kenosha, Wis.—To the Editor of "Domestic Engineering." Sir: I am writing a plumbing ordinance for Kenosha. In reading ordinances of other cities I find several of them specify that bath and lavatory wastes are not to be connected with closet bends. Will you please advise me what are the objections to connecting bath or lavatory or other wastes into a closet bend, providing such branch wastes are properly vented, or provided with anti-syphon traps?

Chas. H. Goodman.

The correctness of plumbing practice in taking bath and lavatory wastes into closet bends is not thoroughly agreed upon. Some cities forbid it and other cities permit it. Some sanitary authorities are inclined to the belief that with a properly designed iron closet bend, provided with separate entrances for lavatory and bath waste that there is no objection to the practice. With the lead closet bend there is objection, because the expansion and contraction of the lead bend, due to changing temperatures of wastes passing through it, frequently tears away the connections between the wastes and bend. In a flat building recently examined in Chicago, of twelve such lead bends, ten of them had the connections destroyed. Some sanitarians have raised the question as to the effect of the inflow and back flow of various different streams into the bend, but no very great objection can be made on this score. We are inclined to believe that you would be perfectly safe in drawing your ordinance so as to permit the use of iron closet bends of a design approved of by the inspector of plumbing or board of health, as the case may be.

SOME POINTS ON CAST IRON FITTINGS.

248.—San Francisco, Cal.—To the Editor of "Domestic Engineering." Sir. I am very much surprised that the question of making the interior of an elbow larger than the opening should have been submitted to you for a decision.

There are two reasons why fittings are made larger in the center than at the ends: One is, to give the tap clearance on the inside; the other is, because all fittings such as tees and ells turn the flow of steam or water and if the fittings were made exactly the same size in the turn as the inside of the pipe screwed into them, it would increase the friction to such an extent as to reduce the capacity of the fitting. For instance, if 1-inch pipe, that is, pipe the inside diameter of which is 1 inch, is of sufficient capacity to carry water in a straight line, an elbow which turns at an angle of 90 degrees should certainly be larger in diameter than the pipe if it is desired to avoid reducing the capacity or flow of water through the turn, The same holds good of tees, Y's and 45-degree ells.

It would not be necessary to enlarge the center of any fitting which does not deflect the flow, such as couplings, reducers and unions, though the enlargement of such fittings would not be of any disadvantage and certainly could not increase the friction.

It is perfectly evident why it is not possible to run a thread on the bottom of the chamber in a recessed fitting, and I presume the case in question refers to the partial opening which might be found between the end of the pipe and the bottom of the thread chamber. It would be impossible, of course, to make the fitting go to the bottom, unless special taps were constructed, as the ordinary tap requires a certain amount of clearance. My impression is that recessed fittings such as Durham fittings, are used largely in sanitary work, and the object which the engineer has in view is to

make the end of the pipe butt up flush, so that there will be no chance between the end of the pipe and the bottom of the thread chamber for anything to lodge. As you doubtless know, most of the sanitary work of large buildings is constructed of wrought galvanized pipe and recessed fittings for the very reason given above. **Justice.**

HOW TO GET AFTER AN OBSTINATE BOARD OF EDUCATION.

247.—**Millersburg, Pa.**—To the Editor of "Domestic Engineering." Sir: How would you get after a school board who refuses to be convinced as to the superior results to be obtained from steam heat as compared with hot air furnaces? **Jealous.**

It would seem that the only way to solve the problem would be to begin an educational campaign. We would proceed something like this:

1. Get in your own town, from parties well known there, comparative data as to the coal consumption of hot air furnaces compared with that of a steam job, in dwellings of nearly the same size.

2. Trace up several furnace jobs and find out what the bills for repairs, etc., have been for the past ten years; and tracing a like comparison in relation to several steam jobs.

3. Prove by personal observation in your own town the effect of hot air upon the health of the people and the more beneficial effect of the air in houses heated by steam or hot water. Do these things personally and do not rely upon agents for an outside concern. What you do yourself you will know is well done.

The Advertising Game

If you skip this department because you say you do not advertise, you err. Advertise you do each minute, either constructively or destructively. The workman carrying a dinner pail advertises his position in life and the loving hearts at home. The drunkard advertises—but let us not read his advertisement; we can do better.

John A. Hill on "The Average Advertiser" in a class journal:

The average advertiser still thinks that he knows more about advertising his product than any advertising writer on earth. He still thinks that he can call up any cheap clerk in a shipping room and make him advertising manager, and judge his efficiency by the write-ups he secures, and the smart you-do-as-we-say-or-we'll-quit-advertising letters he can write, or the letters he can stand off.

He still believes that printed-in-anything is advertising.

He still charges to advertising space in the directories, church and theater programs, souvenirs of the firemen's ball and the Rivet Heaters Assistants' picnic.

He still says he doesn't want to advertise when he's busy because he can't fill his orders, nor when he is dull—because he can't get any.

He still insists on funeral borders, coffin-plate trademarks, stud-horse type, and sideshow display and shuns the real salesman talk about the goods as a hobo shuns the soap and towel.

Advertises to Himself.

He still insists on advertising to himself, not to his possible buyers.

He still buys space and neglects copy—yet he would laugh at the would-be farmer who bought land and bought to plant in it a peck of seed, regardless of what kind it was.

He still thinks editors, and ink and paper and brains, don't cost as much as similar details in real business—his business.

He still wants to be considered the special friend, affinity or paramour, of the particular paper or papers he uses, instead of realizing that a true paper, a worth-a-damn paper, is an open court where all may obtain justice, an equal show and a square deal.

He still insists that he supports the paper, and often goes off with a grouch like a Nicaraguan general, and tries to get up a revolution among the other advertisers to humble the dictator who runs the paper.

He still forgets that the readers ars the whole show for him; that they are the men he is after, and to keep them within the hearing of his announcements, the paper must satisfy and please the reader.

The average advertiser is still unwilling to give as much time to his trade press announcements, appealing to thousands, as he is to his window dressing, appealing to hundreds.

He still tries to act the part of a chained bulldog without his breakfast when an advertising man shows up. He considers that this man takes his time to grind some publisher's axe, instead of offering suggestions to help in his own business.

Mind you, I am talking of the average advertiser. Of course, we have the man who has won some, knows it, and is not afraid to say so and back his say with real advertising. Him we love.

The Average Advertiser.

And, of course, too, we have the man who declares he does no advertising and has more business than his competitors.

I know of one of these. He has stores in many cities covered with signs; he runs a house organ and throws it to the four winds; he gets himself interviewed, photographed and phonographed, eulogized and megaphoned till the cows come home; he makes speeches, has his shop rules published, reads papers and advertises in a special ways, and the fool publishers tell about it. Yet he declares he does not advertise.

The fact of the matter is, no man can do much business and not advertise in some way.

The right thing for the advertiser to do is to get the most real advertising for the least money.

The right thing for the trade-paper publisher is to furnish the most real advertising for the money—not to everybody, but to the people in his line.

The average advertiser has not changed, but, thank God, he is evolving into a better and more enlightened frame of mind.

And he is not alone in the evolution business—there has been as much and more Darwinian progress on the side of the publisher and it was needed more.

Massachusetts Master Plumbers hold Annual Fall Meeting in Worcester

Worcester, Mass., Oct. 21, 1909, (Special).—"If you want to see something doing, just start something," is the present day adage, but it would seem well to amend it to read: "If you want to see something doing just attend a meeting of the Massachusetts State Association of Master Plumbers."

From the tap of President Andrew F. Curtin's gavel, calling the State Association to order at 11:45 a. m., to the adjournment at 4:45 p. m., there was something doing every minute including the hour spent at the banquet table.

It was the regular fall meeting of the State Master Plumbers' Association which convened in Thule Hall on Main street.

Nearly sixty members were present and four press representatives.

President Curtin announced the appointment as sergeant-at-arms of J. C. Luby, of Worcester, and named as a committee on credentials J. J. Sexton, of Worcester; A. J. La Fleur, of Springfield, and James Crawford, of Boston.

Recording and Financial Secretary John P. Drury, of Boston, read the report of the last meeting which stood approved, following which he read several communications, among the most important was one from the Local Union No. 12, of journeymen, which took up **the recent decision of Judge Burke that any man had a right to do plumbing in his own house providing it complied with the requirements of the board of health.**

It was the wish of Local Union No. 12 to see if something could be accomplished in the way of a change in the wording of the statutes so that no one unless licensed by the state could do plumbing even on his own premises.

The reading of the communications was approved and placed on file for later consideration.

Then came the **report of the delegates to the national convention at Detroit.** The delegates were President Andrew F. Curtin, Robert Robertson of Beverly and O. S. Kendall of Worcester. President Curtin, as chairman of the committee, gave a very interesting description of the trip and the doings at the convention, including the changes in the by-laws of the National Association.

O. S. Kendall told of many pleasant incidents of the journey. He mentioned that when the train pulled into Springfield, O., it was boarded by the members and their ladies of that city, who presented everyone with flowers and badges.

John F. Carbee, vice-president of the State Association, while not a delegate to the National convention, was in attendance and was called on by the chair, to tell what he had seen while in Detroit. He said that he could add but very little to what had already been told but one thing he did know, it was a very enjoyable trip.

David Craig, of Boston, in response to the request of the chair, said that the Detroit convention had left a very strong impression on his mind and he thought many things were accomplished which would result in the general good of the association. He was of the opinion that the changes made by the board of directors, in the by-laws, were correct and would go a long way to allay public criticism. **He referred to the convention which is to be held in Chicago next year and called on all to co-operate to make it a grand success,** which he was sure it would be.

President Curtin read the report of the Executive Board's meeting held at the Crawford house in Boston, Sept. 23d, last, where many questions of vital importance were taken up. Reference was made to gas companies going outside their charter in coming into competition with gas fitters and plumbers, by selling gas ranges and water heaters and installing them. Legal advice had been secured to see what action, if any, could be taken to make the gas companies confine their business within the limits of their charters.

The action of the city of Boston in installing ten feet or more of soil pipe, at cost, inside cellar walls for parties where connections with sewers were made, was taken up, with the result that the executive board had secured its discontinuance and the city had been obliged to sell a carload of pipe on the track, which they had purchased.

J. W. Kennelly, of Springfield, who recently returned from a tour of the British Isles, referred to the action of the water commissioners of Springfield putting in piping for people, installing water meters and even going so far as to install water pressure regulators. The city attorney had been consulted and declared the commissioners had a right to do so. Steps had been taken to contest that right.

Later **Mr. Kennelly** was called on, as he was one of the new members of the National Board of Directors, to learn what was doing in the board. He said that he had not yet had the opportunity, since his return, to learn of the doings of the board. He referred affectionately to the decease of R. B. Moodie and regretted very much that he was unable to attend the funeral.

Secretary Drury reported that last year he had collected $1,162.00 up to this date, October 21, while this year for the same period he had collected but $772.00, which showed quite a falling off. He called attention to the many needs for money and asked for more prompt co-operation of the members in this matter.

Recess for the Dinner.

This finishing the old business to come before the meeting, and new business was proposed, when a faint voice, that of F. F. Muldowney, was heard to whisper something about having had breakfast at 6 o'clock in the morning, and that he felt as if his throat had been cut. It seemed as if everyone felt the same way considering the manner in which they responded to the vote for a recess of an hour, to "discuss" a banquet which had been spread in the dining hall in the upper part of the building. It was a course dinner and, as has been remarked, there was something doing every minute.

The Afternoon Meeting.

The first new business to come before the meeting after recess, was the taking up of the communication of Thos. L. Pratt of the journeymen's Local Union No. 12, relating to **Judge Burke's ruling**, in the American House affair. This called up the question of whether the meeting should go into executive session, but it was decided to hold it open.

A complete history of the case was given by those who were familiar with it and it seemed to be the general consensus of opinion that the fault is all in the wording of the law. The Boston building committee had brought Mr. Jones before the court for prosecution, but he had been discharged as the wording of the law was such he could not be held. It was the opinion of one member that it would be a good way to get at it to bring action against the city to recover fees which had been collected from master plumbers for licenses, contending that inasmuch as the license gave them no protection, it had been illegal for the city to collect for it. This he thought would bring it to a direct issue.

A similar case had occurred in Beverly, where a man had done the plumbing in his own residence. He was brought before the court, but the court ruled that a man could do plumbing in his own domicil providing it passed inspection and the party was discharged.

The debate grew rather warm at times and showed that members of the Massachusetts Association, to a man, are good thinkers and can express their thoughts most concisely while on their feet.

It was eventually decided to place the matter in the hands of the Executive Board, with power to act.

The new law revising the licensing of master plumbers and journeymen, the full text of which was published in a recent issue of "Domestic Engineering," was then brought up by President Curtin, for discussion, with the idea that members could get a better understanding of its working. To this extent Secretary Drury had prepared the law in a small book form, giving it complete and explanatory notes on the most important parts.

The principal changes were as follows:

(A) Applications for examinations shall be made in handwriting of applicant and mailed to office of clerk, 195 Centre Street, Boston.

(B) Holders of legal certificates must register before December 20th, 1909.

(C) Holders of licenses must register : : : : when present license expires. This registration may be made at the office of the clerk, 195 Centre Street, Boston.

(D) Fee for registration is $2.00 and for renewals May 1st of each year 50 cents. This fee applies to every master plumber in the State, whether doing business under a certificate or a license. For examinations the fee is 50 cents.

(E) Journeymen plumbers fee for registration is 50 cents. Also the same fee for renewal May 1st of each year, and for examinations.

(F) Every master plumbers license or certificate shall at all times be displayed conspicuously within his place of business.

(G) In localities where there is no law governing plumbing, conditions will be the same as heretofore, but a license from the State Board of Examiners will be required to do work in cities and towns that have a plumbing law.

By motion of David Craig the secretary was instructed to notify the different members in towns where there are no regulations, to send in their names through their local boards of health, that they may be licensed in accordance with the law.

This, with many other things, including the distribution of the law in book form, demonstrated but few of the advantages of becoming a member of the association, and should be a strong inducement for non-members to join.

During the discussion relating to licenses, **J. C. Luby, of Worcester,** displayed the many certificates which had been issued to him in past years and yet it seemed difficult to determine just how he stood in relation to the new law. Someone suggested inasmuch as he had secured so many licenses he should be entitled to a diploma. This caused a laugh and brought forth the following story, from David Craig. A teacher had asked her class to frame a sentence in which the word diploma was correctly used. A little Hebrew boy raised his hand and was allowed to give his sentence which ran as follows: "Something was de matter wid de sink and me mudder sent for deplomer." Everyone laughed and laughed again when Mr. Luby responded with a good one to knock it down.

O. S. Kendall moved the thanks of the association for the attendance of the trade press.

J. J. Sexton on behalf of the committee on credentials reported fifty-one members in attendance who were as follows:

Brockton—J. E. Holland, V. R. Donovan.
Clinton—Peter Maitland.
Everett—L. F. Garvey.
Concord—J. R. Cummings.
Brookline—W. F. Harrington.
Medford—A. F. Curtin.
East Hampton—Jas. P. Ryan.
Newton Upper Falls—J. W. Estabrook.
Salem—John F. Carbeen.
Springfield—J. W. Kennely, Andrew J. LaFleur, J. G. Howland.
Lynn—Thos. F. Connelly, J. P. Kellary.
Lowell—John J. Gaffney, Wm. H. McElholm, Thos. F. Costello, Wm. F. Farrell, R. J. Welch, Chas. H. Hobson.
Boston—Edwin W. Cox, David Craig, H. H. Collins, John Crawford, F. H. Capper, L. W. Stevens, John W. Zehringer, John V. Tully, James Crawford, F. F. Muldowney, Chas. Grosse, J. C. Kelley.
Worcester—M. D. Holmes, M. S. McLaughlin, W. F. Loon, C. Wm. Ostberg, W. D. Hessetlton, H. A. Garrard, C. F. Ostberg, Thos. J. McManus, V. J. O'Donnell, F. P. Gilbert, Chas. F. Allen, John Gustafson, C. H. Grunditz, John J. Sexton, N. F. Cashen, O. S. Kendall, David W. Young, J. C. Luby, H A. Desper.

On motion of Secretary Drury it was voted to empower the treasurer to pay any expenses incurred for the day. The meeting adjourned at 4:45 p. m.

Henry H. Gove.

Could Not Be Fooled.

Hotel Clerk—"Just sign your name, please. The other guests would like to register."

Uncle Silas—"Don't you try to hurry me, young man. I don't never sign nothing that I ain't read carefully."

PERSONAL MENTION

James Reilly, master plumber of no small proportions, of Niagara Falls, N. Y., has been nominated as alderman-at-large on the B. P. O. E. Elks' ticket, and we are informed it's a walkaway already.

Harry L. Allison, formerly in charge of the claim department of the Standard Sanitary Mfg. Co., has accepted a position with the Standard Manufacturing Company, of Pittsburg, as special representative calling on architects and owners in that city and vicinity.

C. W. Russell, president of the Russell Sewage Disposal Company, of Burlington, Iowa, is planning a voyage down the Mississippi river from Burlington, Iowa, to New Orleans, La., in his forty-foot cruiser. It is his intention to start November 10 and he will be accompanied by his wife and daughter.

Charles Morrison, the popular envoy of the Walker & Pratt Manufacturing Company, of Boston, Mass., is receiving carloads of congratulations these days upon his receipt of a bouncing baby boy. Charles Morrison, Jr., will be appropriately educated, and it will not be many years before he makes his debut as a budding heating engineer. Foreign papers, please copy.

J. P. Hargather, an influential master plumber of Rochester, N. Y., has just returned from a trip around the world, we understand. When it comes to seeking adventure, our friend J. P. has these Cook-Peary expeditions faded into oblivion and we are never surprised when pretty, tinseled postal cards, bearing countenances of charming Geisha girls, reach us from the far East. Our friend is very active in this department.

John Drew, no longer in the profession, but now asso- Ohio, and covering for that institution a portion of New ciated with the John Douglas Company, of Cincinnati, York state and of New England, was recently married in Albany, N. Y. In spite of the fact that none except close friends of the two respective families were in attendance, the ceremony could not be kept secret. Mr. Drew's many friends are congratulating him by this time.

GOVERNMENT WORK

Washington, D. C.—Sealed Proposals will be received at the office of Supervisor Architect James Knox Taylor until 3 o'clock p. m., November 11, 1909, for the extension, remodeling, etc., including plumbing, gas piping, heating apparatus and electric wiring of the United States postoffice at Fort Dodge Ia.

Washington, D. C.—Sealed proposals will be received at the office of Supervising Architect James Knox Taylor until 3 o'clock p. m., November 16, 1909, for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring), of the U. S. Postoffice at Belleville, Ill., in accordance with the drawings and specifications.

Washington, D. C.—Sealed proposals will be received at the office of Supervising Architect James Knox Taylor until 3 o'clock p. m., November 18, 1909, for the construction (including plumbing, heating, wiring and standard clock system) of the extension of the United States postoffice at Rock Island, Ill., in strict accordance with drawings and specifications.

WHOLESALE PLUMBING AND HEATING NEWS

HAS CHANGED ITS NAME.

The Globe Sanitary Supply Company, of San Francisco, Cal., has changd its name to the Globe Consolidated Supply Company.

NOW AT SOUTH MILWAUKEE, WIS.

The Ajax Line Material Works, makers of plumbers' specialties and electrical supplies, has moved its factory from Chicago to South Milwaukee, Wis.

COMPLETE LARGE ADDITION.

The Turner Heater Company, of Bristol, Conn., has just completed a large addition to its factory on Pond street to meet the requirements of the increasing business.

PHILLIP HAAS CO. BUILDS NEW PLANT.

The Philip Haas Company, of Dayton, Ohio, is erecting a new modern factory on North Western street in that city. The new plant will be a three-story structure with basement and it is planned to have it fully equipped and ready for occupancy within sixty days.

WOLFF'S DENVER BRANCH MOVES INTO ITS NEW BUILDING.

The Denver branch of the L. Wolff Mfg. Co., of Chicago, has moved into its new building at 1624-1630 Wazee street, Denver, Colo., according to announcements mailed to the trade under date of October 23 by F. K. Dibley, manager of the branch.

WILL MAKE HEATING BOILERS AND RADIATORS AT GREEN BAY, WIS.

It is reported that a company has been organized for the purpose of building a plant at Green Bay, Wis., for the manufacture of heating boilers and radiators for steam and hot water. Those behind the enterprise are said to be local and outside capitalists.

JOHN PORSCH IN THE BANKRUPTCY COURT.

John Porsch, manufacturer of plumbing specialties at 1220 Peach street, Erie, Pa., was adjudicated a bankrupt in the Western District Court of Pennsylvania on Friday, October 22. The first meeting of the creditors will be held at Referee Joseph M. Farce's office, 2 Reed block, corner Seventh and State streets, Erie, Pa., at 10 o'clock, Wednesday morning, November 3.

HEALTH EXHIBITION IN BUENOS AIRES, 1910.

William E. Peck & Co., of 166 Broad street, New York city, report that a large concern at Buenos Aires, Argentine, South America, for which they act as buyers in this country, is arranging to make an exhibition in that city in 1910 of all kinds of appliances which would come under the designation of things suitable for healthy and up-to-date homes. A member of the South American concern is at present in London collecting new appliances along this line and in some cases making arrangement with the manufacturers to exhibit for their account. American manufacturers interested can obtain the name and address of the party arranging the exhibition upon request to William E. Peck & Co., New York city.

CENTRAL SUPPLY ASSOCIATION HOLDS ANNUAL MEETING AT ST. LOUIS.

The Central Supply Association held its annual meeting at the Southern Hotel in St. Louis, Mo., on Wednesday, October 27th. The executive committee was in session the day before. The importance of the meeting brought a large attendance. New officers were elected, and this, together with the routine business, made the meeting an interesting event in the trade.

Election of Officers.

The following officers, executive committee and representatives on the National Committee were elected for the ensuing year:

President, Frank Collins, of Toledo, O.

First Vice-President, Geo. H. Gorton, of Kansas City, Mo.

Seconl Vice-President, P. J. Frey, of Minneapolis.

Treasurer, E. F. Niedecken, of Milwaukee.

Secretary, Paul Blatchford, Chicago.

Executive Committee: John D. Hibbard, J. B. Rahm, H. L. Andrews and S. H. Moon.

National Committee—Members: John D. Hibbard, H. L. Andrews, H. M. Hoelscher, F. D. Keeler and Frank Collins. Alternates: Alex. B. Pierce, Geo. W. Ryan, J. F. Wolff, A. Y. McDonald and A. Markel.

New Members.

The following concerns were elected to membership:

The Lowry Company, Atlanta, Ga.

S. H. Supply Company, Denver, Colo.

C. W. Marcellus Company, Grand Rapids, Mich.

Higgins Company, San Antonio, Tex.

Atlas Supply Company, Muskogee, Okla.

Members in Attendance.

The following members were represented as indicated:

Algoma, Wis.—Plumbers' Woodwork Co., by C. W. Badger.

Anderson, Ind.—May Supply Co., by Isaac E. May.

Chattanooga, Tenn.—The Cahill Iron Works, by Harry Verbeek.

Chicago, Ill.—W. D. Allen Mfg. Co.; American Radiator Co., by Geo. E. Downe and F. S. Whitelaw; Cameron-Schroth-Cameron Co.; James B. Clow & Sons, by J. C. Clow; Crane Co., by H. M. Haldeman; Stephen Deschauer; Federal-Huber Co., by Jno. D. Hibbard; Findeisen & Kropf Mfg. Co., by Geo. I. Blowers and O. F. Kropf; Gould Company; Henion & Hubbell; Holland Radiator Company, by J. E. Holland; Illinois Malleable Iron Co., by E. M. Marshall and J. R. Steneck; Kellogg-Mackay Co., by C. V. Kellogg; Mark Mfg. Co., by B. T. Bechtel, J. S. Dibley, F. D. Halm, C. W. Larsen and C. E. Van Court; Monash-Younker Co.; The National Plumbing & Heating Supply Co.; National Tube Co., by L. R. Phillips and H. P. Nelson; The Nye Tool & Machine Works, by H. G. Nye; Republic Mfg. Co.; J. J. Ryan & Co., by Geo. P. Stannard; Street & Kent Mfg. Co., by C. D. Street; Weir & Craig Mfg. Co.; Western Plumbing Supply Co.; L. Wolff Mfg. Co., by Louis Wolff, Jr.

Cincinnati, Ohio—Lunkenheimer Co., by David C. Jones; Murdock Mfg. & Supply Co.; The D. T. Williams Valve Co., by D. T. Williams.

Columbus, Ohio—Columbus Brass Co., by Leo Lindenberg; Columbus Supply Co.; Scioto Valley Supply Co., by W. W. Ross.

Dayton, Ohio—Dayton Supply Co.

Denver, Colo.—The M. J. O'Fallon Supply Co., by M. J. O'Fallon; The S. H. Supply Co., by Geo. G. Morse.

Detroit, Mich.—A. D. Mfg. Co., by H. Romeyn Smith; Detroit Lead Pipe & Sheet Lead Works, by E. A. Morris; Detroit Lubricator Co.; Detroit Range Boiler Co., by E. W. Stoddard; A. Harvey's Sons Mfg. Co., Ltd., by James Harvey; The Sterling & Skinner Mfg. Co.; United States Heater Co., by M. G. Pierson.

Dubuque, Iowa—Kretschmer Mfg. Co., by Fred N. Kretschmer.

Evansville, Ind.—The Never-Split Seat Co., by J. R. Goodwin.

Fort Wayne, Ind.—Knott-Van Arman Mfg. Co.; The P. & H. Supply Co., by Geo. Taylor.

Grand Rapids, Mich.—Ferguson Supply Co., Ltd., and Wolverine Brass Works.

Holland, Mich.—Central Closet Mfg. Co., by Geo. A. Harper.

Indianapolis, Ind.—Central Supply Co., by L. C. Huesmann; Indiana Supply Co., by J. M. Gilchrist.

Kalamazoo, Mich.—Quinn Mfg. Co.

Kansas City, Mo.—Kansas City Pump Co.; U. S. Water & Steam Supply Co., by V. S. Ferguson.

Kenosha, Wis.—Frost Mfg. Co., by W. J. Frost.

Kokomo, Ind.—Great Western Pottery Co., by A. V. Conradt and E. Willard.

Louisville, Ky.—Ahrens & Ott Mfg. Co., by Samuel H. Moon; Laib Co.

Mansfield, Ohio—The Barnes Mfg. Co., by T. R. Barnes.

Marietta, Ohio—Becker Mill Co., by R. R. Schultz.

Menominee, Mich.—Emerson-Corbin Supply Co.

Milwaukee, Wis.—F. R. Dengel Mfg. Co., by F. R. Dengel; Hoffmann & Billings Mfg. Co., by E. F. Niedecken; Rundle-Spence Mfg. Co., by E. R. Spence.

Minneapolis, Minn.—Central Supply Co., by P. J. Frey.

Muncie, Ind.—Geo. Keiser & Co.

New York, N. Y.—American Sanitary Works, by B. O. Tilden and S. Watts Bowker.

Noblesville, Ind.—Union Sanitary Mfg. Co., by E. V. Brigham.

Omaha, Neb.—U. S. Supply Co., by J. B. Rahm.

Pittsburg, Pa.—Pittsburg Valve & Fittings Co., by L. B. Jenks and C. L. Selkregg; Wm. B. Scaife & Sons Co., by F. W. Peters; Spang, Chalfant & Co., by J. D. Hardcastle D. B. McClelland and F. D. Purdy, Jr.; Standard Mfg. Co., by F. J. Torrance; Standard Sanitary Mfg. Co., by Theo. Ahrens and James A. Riordan.

Rockford, Ill.—Rockford Brass Works, by F. D. Keeler.

St. Joseph, Mo.—Horigan Supply Co., by J. J. Horigan.

St. Louis, Mo.—American Foundry & Mfg. Co., by Barney H. Sanders; John C. Kupferle Foundry Co., by W. C. Ehrhardt, John B. Gross and Jno. P. Woods; N. O. Nelson Mfg. Co., by L. D. Laconia, J. D. McGuire and Alex. B. Pierce; L. M. Rumsey Mfg. Co., by H. S. Rumsey and L. M. Rumsey; Rumsey & Sikemeier Co., by W. C. Rumsey.

St. Paul, Minn.—Union Brass & Metal Mfg. Co., by P. J. Frey; Western Supply Co.

San Antonio, Texas—Higgins Company, by W. G. Higgins.

Sheboygan, Wis.—J. M. Kohler Sons Co., by J. B. P. Murphy.

Springfield, Mo.—H. Cooper, Jr., by H. Cooper, Jr.

Steubenville, Ohio—La Belle Iron Works, by W. E. Watson.

Sturgis, Mich.—Miller-Hubbard Mfg. Co., by C. A. Miller.

Toledo, Ohio—American Plumbers' Supply Co.; The Jos. Grosswiller Supply Co., by Chas. Keplinger; National Supply Co., Frank Collins.

Union City, Ind.—Knapp Supply Co., by L. C. Huesmann.

Warren, Ohio—Day-Ward Co.

Waukegan, Ill.—Northern Brass Mfg. Co., by C. S. Johnson.

Also in Attendance.

The following were also in attendance:

Chicago, Ill.—C. C. Todd, of Central Foundry Co.; W. S. Verity, Jr., of Standard Sanitary Mfg. Co.

Conshocken, Pa.—Herbert B. Hallett, of the John Woods Mfg. Co.

New York, N. Y.—J. L. Duryea, of Colwell Lead Co.

Omaha, Neb.—A. G. Pittelkow, of the U. S. Heater Co.

Pittsburg, Pa.—John Duncan.

St. Louis, Mo.—E. H. Boehnke, of Crane Co.

Trenton, N. J.—A. M. Maddock, Jr., of the Thos. Maddock's Sons Co.; W. C. Matlack, of Potteries Selling Co.; E. S. Aitkin, of Trenton Potteries Co.

MOVES ITS NEW ORLEANS OFFICE.

The New Orleans office of the Star Expansion Bolt Company, of New York, is now located at 504 Audubon building. D. S. Miller is sales agent.

TRENTON POTTERIES PAY DIVIDENDS AGAIN

The Trenton Potteries Company, of Trenton, N. J., has resumed dividends on its preferred stock by ordering a disbursement of 1 per cent on October 25 to holders of record October 21. The last dividend was paid July 25, 1907, and it was 2 per cent.

NOW WITH THE WHEELING STEEL AND IRON CO.

John Duncan, formerly assistant general manager of sales for the National Tube Company, of Pittsburg, Pa., has accepted the position as sales manager for the Wheeling Steel and Iron Company, of Wheeling, W. Va.

DECLARE REGULAR QUARTERLY DIVIDEND.

The National Lead Company, of New York City, has declared its regular quarterly dividend of 1½ per cent on its preferred stock, payable December 15.

The Amalgamated Copper Company has declared the usual quarterly dividend of 50 cents a share, payable November 29 to stock of record October 28. This company has now distributed $46.50 a share since its organization, or a total of $71,537,524.

The United States Steel Corporation on last Tuesday declared a quarterly dividend of 1 per cent on the common stock raising the annual rate again to 4 per cent. The dividend is payable December 30. Transfer books close December 10 and re-open December 31. The regular quarterly dividend of 1¾ per cent on the preferred stock was also declared, payable November 30. Books close November 5 and re-open December 1.

CHICAGO PLUMBING SUPPLY BOWLING LEAGUE.

The Chicago Plumbing Supply Bowling League held its weekly tournament on Schindler's alleys, corner of Huron street and Milwaukee avenue, Chicago, on Thursday evening, October 21. Some unusually brilliant games were played, several scores being over 800. The most notable honors of the evening were distributed as follows: Cameron, Schroth, Cameron Co.'s team had high average score for three games at 803, and also highest team score with 853. Ed Slater, of Federal-Huber Co.'s team, made the individual high score of the evening with 213, while Martin Rademacher, of the L. Wolff Manufacturing Co.'s team had high individual average score for three games at 186. The result of the games were as follows:

	1st game.	2nd game.	3rd game.
Cameron-Schroth-Cameron Co..	750	853	804
Davies Supply Co.....	576	653	624
Federal-Huber Co.	790	812	788
Weil Bros.	672	643	682
Republic Mfg. Co.....	712	751	641
Illinois Malleable Iron Co.....	661	674	608
L. Wolff Mfg. Co.....	798	787	765
Western Plumbing Supply Co..	559	687	722

THE METAL MARKET

THE IRON MARKET CONTINUES STRONG.

New York, N. Y.—To the trade the chief interest in the quarterly statement of the United States Steel Corporation lies in the report relating to the unfilled orders on hand on September 30, which show an increase of 740,000 tons over those of June 30, says "The Iron Age." In view of the policy consistently followed since the break in prices, of making as few commitments as possible beyond the current year, this increase may seem large. It must be remembered, however, that the quarter in question has witnessed the booking of a large tonnage of steel rails for 1910. Activity and strength in the pig iron markets continue. A leading cast iron pipe interest has purchased upward of 60,000 tons, the bulk from Virginia makers, Alabama furnaces taking the smaller part of the order. Additional iron was also secured in the Buffalo district.

NEW YORK METAL MARKET, OCTOBER 26.

Copper, Prime, Lake	$13.00
Copper, Electrolytic	12.75
Lead	4.40
Spelter	6.40
Antimony, Cooksons	8.37½
Straits Tin	30.62½

CHICAGO IRON MARKET, OCTOBER 28.

Lake Superior Charcoal.....	$19.50- $20.00
Southern, No. 2 Foundry.....	19.35
Northern, No. 2 Foundry.....	19.00

October 28, 1909.

Foundry iron was the same as the week previous.
$2 more a ton than year previous.
Copper was the same price as the month previous.
½c less a lb. than the year previous.

CHICAGO PLUMBERS PLAN ENJOYABLE MEETING.

Chicago, Ill.—The Chicago Master Plumbers' Association will hold its regular monthly meeting in the Schiller hall, 103 Randolph street, Friday evening, November 5. Special efforts are being made to have all members attend. After the meeting a buffet lunch with refreshments and cigars will be served.

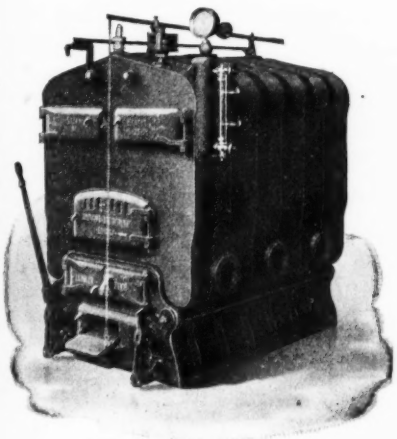
Archie M. Maddock, Jr., of Thomas Maddock's Sons Company, Trenton, N. J., was in Chicago this week and made welcome calls on some of his many friends in the trade.

J. George Jones, who dispenses "Climax" philosophy for C. M. Kemp Mfg. Co., of Baltimore, reached New York last week after an extended tour of the middle west. Mr. Jones reports an unusually large volume of business in that section.

A. N. Pasman, manufacturer of the Crest flush valve and a member of the Master Plumbers' Association in Jersey City, N. J., has the sympathy of a host of friends upon the demise of his wife, which occurred on Monday, October 18.

Unified Heating.

"In unity there is strength" and in the combination of two such sturdy heating forces as IDEAL Boilers and AMERICAN Radiators there is the unity of efficiency, economy and durability for one end, the production of good heating results through fitting and worthy mediums.



IDEAL Sectional Steam Boiler.

Either IDEAL Boilers or AMERICAN Radiators express thorough heating efficiency in its best terms yet in the unity of both there is superiority unqualified.

AMERICAN & IDEAL
RADIATORS & BOILERS

A Heating Outfit is More Efficient with NORWALL and SYLPHON SPECIALTIES

AMERICAN RADIATOR COMPANY

General Offices, 282-286 Michigan Ave., Chicago.

New York, Philadelphia, Pittsburg, Washington
Cincinnati, Boston, Buffalo
Cleveland, Milwaukee, Indianapolis
Atlanta, Minneapolis, Kansas City
Brantford, Ont., Seattle, Omaha
Denver, St. Louis, San Francisco

GOOD BUSINESS CHANCES FOR GOOD MEN

This department is for the benefit of our readers. If you want to go into business please write us the kind of place you want and the character of the business you are interested in, and we will publish in this column a request for information which may help you to get what you want. If you want to sell your business, please write us a description of your town, the possibilities for business, the stock on hand, and reasons for selling, and we will do our best to find a purchaser for you.

What is believed by its owner to be one of the best stocks of goods in one of the best localities between Chicago and Omaha can be bought. The business shows a profit commensurate with the investment. The owner desires to remove his family to a higher altitude and will sell the stock right if he can sell at once. Books and business open for investigation. Owner will accept one-third cash and carry two-thirds for an indefinite time at a low interest rate. Town is 16,000, up-to-date in demanding right plumbing and heating; prices are good; help plentiful; runs six men regularly and picks up extra help easily when needed; store room is 28x90, with basement; on main street; show room 28x40. If interested in this, please write "Domestic Engineering," 209-213 N. Jefferson street, Chicago, mentioning Business Chance No. 54.

* * *

In a fine railroad center in a growing and prosperous city on a trunk railway from Chicago, there is a plumber and steam fitter who has been offered a good railroad position. He wants to sell out so he can take it. It is said to be a good opportunity; is the only exclusively plumbing, heating and tinning business in the hustling city; stock is new; will be sold at inventory price, with nothing added for good will; owns the brick building in which shop is located, which he will sell or rent, as desired; has work ahead to keep busy all winter; city has municipally-owned water works and electric light plant, and a good sewer system; is junction of five railroads. If interested, please write "Domestic Engineering," 209-213 N. Jefferson street, Chicago, referring to Business Chance No. 55.

THE OFFICE BOOKSHELF

The Official Proceedings of the American Society of Inspectors of Plumbing and Sanitary Engineers for the fourth annual meeting, held at Omaha, Neb., February 8-10, 1909, have been published, and non-members of the society can purchase copies at $2.50 each, from Secretary-Treasurer C. S. McCosker, 264 Francis street, Mobile, Alabama.

The book is published in the usual handy size, 5¼x7½ inches, in which all the previous proceedings of the society have appeared. It consists of 352 pages, filled with valuable papers and invaluable discussions on topics of vital interest to plumbing inspectors and sanitary engineers. A careful perusal of this volume makes us wonder how any wide-awake plumbing inspector or sanitary engineer can reconcile his best interest, or that of the municipality which he represents, with non-membership in this energetic and progressive society. The value of the book is enhanced by a carefully prepared index and a list of contents, which make it handy for reference use. The book also contains a list of the members arranged alphabetically as well as by states and cities.

Delaware, O.—T. H. Clark has sold his interest in the plumbing firm of Clark, Hilf & Clark to his son and the firm will hereafter be known under the name of Clark & Hilf.

WITH THE MAKERS

Make "Climax" and "Modern" Gas Water Heaters.

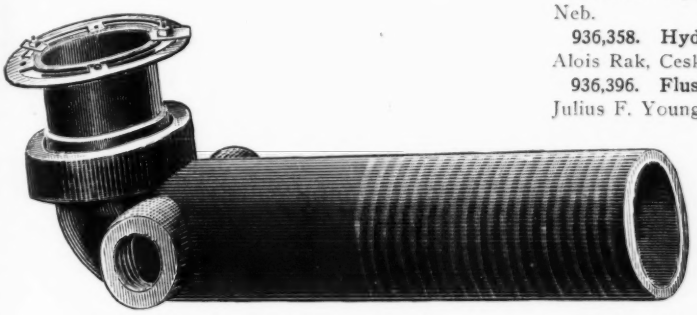
The Long-Landreth Co., of New Brunswick, N. J., manufacture the "Climax" and "Modern" gas water heater for domestic hot water supply. H. J. Long was formerly connected with the water heating industries in Pittsburg and Mr. Landreth was Cleveland manager for the Monarch and Pittsburg Water Heater Co. They manufacture the "Climax" gas water heater for range boiler connections, the "Modern" gas water heater for connections with gas ranges, and an automatic instantaneous water heater, with a four-gallon per minute capacity for the entire house, or two gallons per minute for bath only. They will be glad to send their printed matter to persons who are interested in these devices.

The Rice Cast Iron Water Closet Bend.

Plumbing, one of the oldest mechanical arts, doubtless has undergone a greater evolution during the last two decades than any other similar art, particularly as regards the design and fixtures used. In the days of our fathers, many of whom are happily yet with us, lead work fashioned by hand was the rule, even the soil pipe was lead and hand made, but the iron pipe has been with us now for many years, the almost universal use of the lead bend a most vital part of the plumbing system, however, has survived in a great portion of work done.

After having been called upon to remove many lead bends found in bad condition, leaking both water and sewer gas, Edward J. Rice, a master plumber of Rochester, N. Y., and one of the best of mechanics in that part of the country, had the idea forcibly brought home to him that if cast iron was good for soil pipe it was even better for closet bends, accordingly he designed a cast iron bend upon which he was granted a patent. Mr. Rice began using the bend at once in his own work and as imperfections became apparent they were eliminated and improvements made until Mr. Rice now proudly claims that his bend is the acme of perfection, and recently began its manufacture and sale in a large way. Shown herewith is one of his latest designs, which he invented to meet his own requirements, those of a practical master plumber. The closet connection had baffled the skill of inventors for many years, but Mr. Rice thinks he solved the problem and his solution is the Rice cast iron bend, which is made 18 inches long from end to center. The No. 1 bend is tapped 1½ inches on both sides for waste openings. The No. 2

bend is tapped in the same manner and has 2-inch back air vents. These bends are corrugated as illustrated, allowing the cutting off to fit exactly any required roughing-in space. These bends are also tapped with 1½-inch slanting waste, and they are made with either lead or all brass connection to closet. They are



The Rice cast iron water closet bend.

also made for the Durham system. Mr. Rice claims that his closet bend is in a distinct class by itself on account of its special features, such as the short hub allowing the bend to be used in a 6-inch joist or anywhere and its brass adjustable closet connection or lead connection. A very interesting and instructive circular with full information about these bends will be sent to those who write for it and mention "Domestic Engineering."

PATENTS

936,313. **Sink Stop.** Oswald J. Deegan, Port Arthur, Canada.

936,288. **Damper for Furnaces.** Christopher G. Atwater, Flushing, N. Y.

936,319. **Pipe-Tongs.** Elmer M. Hedlund, Lynch, Neb.

936,358. **Hydraulic Weighing-Machine for Liquids.** Alois Rak, Cesky-Brod, Austria-Hungary.

936,396. **Flushing Device for Water-Closet Tanks.** Julius F. Young, Owatonna, Minn.

937,209. **Hot-Water Heater.** George R. Gallagher, Chicago, Ill.

937,221. **Water-Faucet.** William B. M. Bashlin, Warren, Pa.

937,288. **Check-Valve.** Charles J. Drury, La Junta, Colo.

936,388. **Water-Closet.** Harry W. Ward, Pittsburg, Pa.

936,393. **Washbasin-Plug.** John D. Winfree, Louisburg, N. C.

936,440. **Hot-Air Register.** Ernest C. Fox, Cleveland, Ohio.

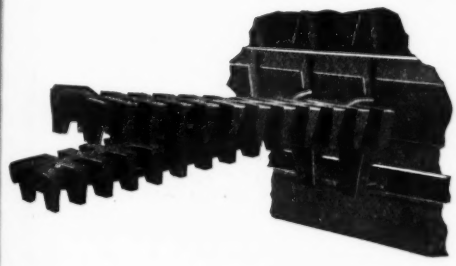
936,454. **Gate-Valve.** Eugene D. Jefferson, Lowell, Mass.

937,046. **Closet-Seat.** Albert J. Bogart, Far Rockaway, N. Y.

937,065. **Connection for Pipes.** Timothy D. Gleeson, New York, N. Y.

CAPITOL BOILERS AND RADIATORS

Don't Lie on Your Back to fasten those grate bars



Instead set them in place from on top. On all Improved Capitol Boilers, the grate bars are fastened to the connecting rod same as illustrated. No bolts to fasten underneath. Just set the grate in place and they are there to stay.

Can they jump out of place? Not when the groove in the base is at least four inches deep.

United States Heater Company

General Offices and Works: Fort St. and Campbell Ave., DETROIT, MICH.

BRANCHES:

NEW YORK	129 Worth St.
CHICAGO	34 Dearborn St.
OMAHA	916 Farnam St.
DETROIT	139 Jefferson Ave.
KANSAS CITY OFFICE	413 N. Y. Life Bld.

SALES AGENCIES:

MINNEAPOLIS, MINN., Plumbing & S. F. Supplies Co.
ST. LOUIS, MO., L. M. Rumsey Manufacturing Co.
DENVER, COLO., Kellogg & Stokes Stove Co.
DULUTH, MINN., Duluth Plumbing Supply Co.

937,079. **Waste and Overflow for Basins, Tubs and the Like.** Charles F. Longfellow, St. Louis, Mo.

936,496. **Hose-Cock.** Henry Vinette, Pittsfield, Mass.

936,516. **Toilet-Closet.** Robert A. Brooks, Chicago, Ill.

936,535. **Air-Control Steam-Valve.** James A. Hicks, Atlanta, Ga.

936,554. **Washer-Gasket.** Henry Mueller, Decatur, Ill., assignor to H. Mueller Manufacturing Company, Decatur, Ill., a Corporation of Illinois.

936,742. **Ball-Cock.** Horace S. Rumsey, St. Louis, Mo.

936,804. **Pipe-Wrench.** Alva A. Patton, San Pablo, Cal.

936,816. **Soldering-Tool.** Louis Schemnitz, New York, N. Y., assignor to Atlas Torch and Brass Company, a Corporation of New York.

936,839. **Reinforced Lead Pipe.** Edward F. Wardwell, Woodstock, Vt.

936,963. **Steam-Trap.** William Wanstall, Arlington, N. J.

HE SAW A TORNADO AT A DISTANCE OF LESS THAN ONE HUNDRED FEET.

J. E. Kinner, heating salesman for Samuel Sloan Company, of Rochester, N. Y., happened to be at Cambridge Springs, Pa., on Thursday afternoon, October 21, when that town was visited by a tornado. Writing from that city the same evening Mr. Kinner gives the following graphic description of what he saw:

"I just had the experience of witnessing a tornado that passed through this town at about 5:30 this afternoon. It passed about 100 feet from where I stood, and it was the most awe-inspiring sight I ever saw. It leveled the trees and buildings like card houses and picked them up bodily and whirled them through the air. It moved a house from somewhere and set it in the Riverside Grove, and no one seems to know where the house came from.

"The air was full of tin roofs and parts of buildings. I saw a closet bowl out in the field fully 1,000 feet from any house. In the wreck of one house the only thing left was a 5-foot Climax tub. It took a caboose on a freight train and turned it around sideways on the track.

"The water works power house was wrecked and not a brick left in its place. It was lucky that no fire started.

"When I saw it coming I was so scared that I didn't know whether to get inside of the hotel or run, so I stood still and watched it mow down the buildings. The air was perfectly still where I stood, and I was not over 100 feet away. The noise was terrific, and as it passed along it looked like the tail-end of a balloon hanging down from the sky. It went towards Corry from here."

Burlington, Iowa.—Russell Sewage Disposal Company, of this city, furnished the sewerless sewage disposal system, which is being installed at Hedding College, in Abingdon, Ill.—Adv.

The Easy Selling Seat

Judd's Keystone Seat

is the easiest selling Closet Seat on the market because it has the appearance and construction, backed up by reputation, and is unconditionally

GUARANTEED FOR 6 YEARS

It is made as a Closet Seat should be made—with a Double Dovetail Wedge Joint that can never loosen or break. It's as perfect a Seat as can be made. No foreign substances (such as metal) used therein to rust, corrode or decay.

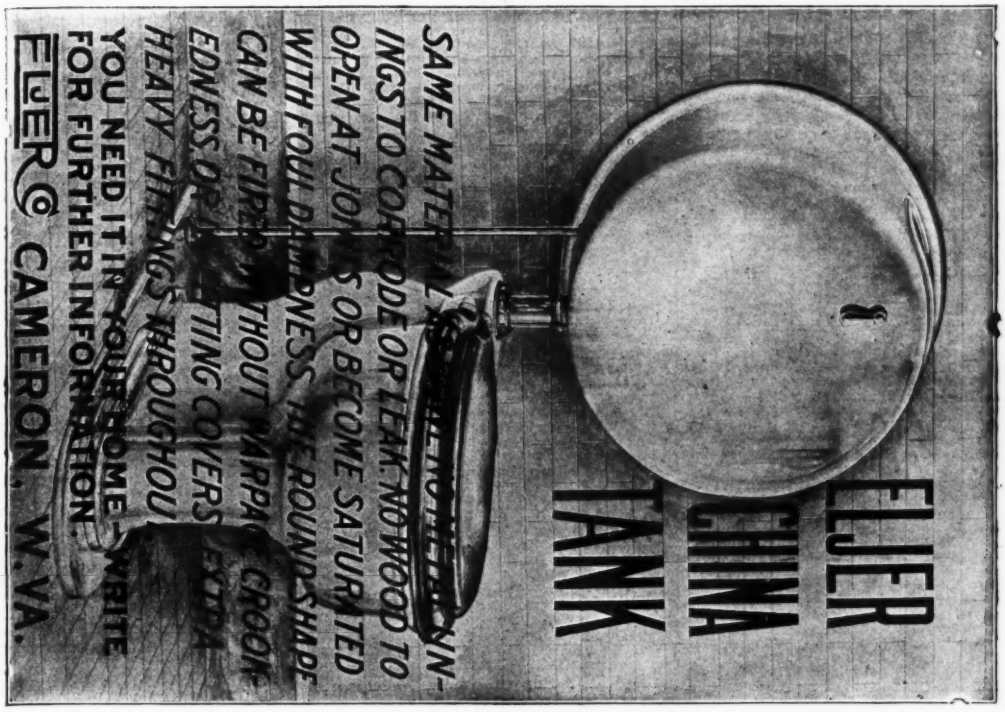
Examine JUDD'S JOINT

Write for a sample of the Keystone Double Dovetail Taper Wedge Locked Joint and see for yourself why Keystone Seats are the most popular made.

E.C.B.JUDD, Inc.

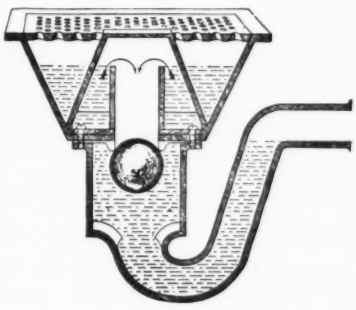
Manufacturer KEYSTONE CLOSET SEATS and PLUMBING GOODS

MUSKEGON, MICHIGAN



Finish Up That Job Right

DON'T wait till the cellar is flooded next spring—or sooner; tell them about the MILLER CELLAR AND BACK WATER TRAP and what it will do. They will see the point and order one.



The Miller Trap can't help but work

Our rubber washer and copper float have been chosen after years of experience and experimenting. You have as a result a device which cannot get out of order, and is really a back water trap.

Order Now. Immediate Shipment

MILLER FOUNDRY & SPECIALTY CO.
NORTH TONAWANDA, N. Y.

CLASSIFIED ADVERTISEMENTS

The rate of advertising under this heading is 25 cents a line, or 5 cents a word, for an insertion, remittance to be made with order. To insure insertion in this column copy should be received not later than Wednesday morning.

Help Wanted.

WANTED—Steamfitter. Buchanan-Boughton Co., Marshalltown, Ia.

WANTED—An experienced plumbers brass goods salesman. Address No 167, "Domestic Engineering," Chicago.

WANTED — FIRST CLASS NON-union plumbers. Steady work. Five dollars for eight hours. Denver Master Plumbers Association, 214, Nassau Block, Denver, Col.

WANTED—Bill clerk for wholesale plumbing supply house; must be experienced, rapid and accurate; state age, experience and salary wanted; must furnish first-class reference. Address No. 165, "Domestic Engineering," Chicago.

WANTED—Bookkeeper for plumbing and heating establishment; must be quick and accurate and thoroughly acquainted with the plumbing and heating business; steady employment to right party; young married man preferred; references required. Address No. 161, "Domestic Engineering," Chicago.

Situations Wanted.

SITUATION WANTED—A man thoroughly experienced in the manufacture of plumbers', gas and steam fitters' brass goods, will be open for position as Foreman or Superintendent of Factory Nov. 1st. Address No. 166, "Domestic Engineering," Chicago.

MANAGER of woodworking plant, with brass department, engaged in manufacturing plumbers' woodwork desires to make a change. Would like to get in touch with a similar position to take charge of this department, for jobbers finishing and fitting their own woodwork. Competent to assume entire charge of plant, office, sales, etc., and to create a demand for the product. Address No. 168, "Domestic Engineering," Chicago.

For Sale.

FOR SALE—Plumbing, heating and tin shop business in a hustling Michigan town, plenty of business. Adin P. McBridge, Durand, Mich.

FOR SALE—Well established plumbing and heating business, located in one of the best towns on Puget Sound; doing best business in the county. No. 158, "Domestic Engineering," Chicago.

Miscellaneous.

WANTED—TO BUY A PLUMBING SHOP in a good town within 150 miles of Chicago. Address 164, "Domestic Engineering," Chicago.

Plumbing Schools.

LEARN PLUMBING ON NEW buildings for $50.00; catalog free. Enterprise Plumbing Const. Company, 3659 Finney Ave., St. Louis, Mo.

Books.

Sanitation in the Modern Home. By Jno. K. Allen. An invaluable guide to the architect, plumber, heating engineer and house owner, telling just what is necessary to make a house completely sanitary from the subsoil to the roof. 8x5¼ inches; 272 pp.; bound in cloth; postpaid, $2.00. "Domestic Engineering," Chicago.

Roughing-in House Drains. Edited by Jno. K. Allen. A complete guide to the work of roughing-in plumbing, from the digging of the sewer to the finishing length of the soil and vent stacks, giving each step to be taken and telling how and why it is done. 6¼x4¼ inches; 184 pp.; bound in boards. Postpaid, 50 cents. "Domestic Engineering," Chicago.

Sanitary Sewerage of Buildings. By Thos. S. Ainge. An authoritative statement of the principles and practice of sewering buildings, including the design and construction of plumbing systems, disposal of sewage in unsewered localities, etc.; 8x5 inches; bound in cloth; 209 pp.; postpaid, $1.50. "Domestic Engineering," Chicago.

Notes on Heating and Ventilation. Second edition. By Prof. John R. Allen. Written primarily for the steamfitter and designer of heating systems. Reduced to as brief a form as possible, so that readers can readily find notes or data desired. Bound in cloth, 6¾x4¾ inches; 272 pp.; postpaid, $2.00. "Domestic Engineering," Chicago.

"Domestic Engineering" Directory. Published annually in three parts; part I contains directories of great value to the jobber, manufacturer, and dealer in plumbing, heating and mill supply trades; bound in leather, $5.00; part II is illustrative and descriptive of the mentioned trades' specialties; 11¼x8 inches; bound in cloth; part III is in Spanish. "Domestic Engineering," Chicago.

Dean's Steamfitter's Computation Book. Contains figured cubical contents of rooms of different sizes and ceiling heights; also tables showing radiation necessary at various rates per square foot of glass surface, wall surface, or cubic feet; also square feet of glass or wall in surfaces of various dimensions; also cost of selling price of radiators at various market prices. These tables save fitters thousands of arithmetical calculations, giving the answers ready to hand. Leather bound; 7¾x5 inches; 90 pp.; postage prepaid, $2.50. "Domestic Engineering," Chicago.

Plumbing Catechism. By Charles B. Ball. Second edition. This book formulates, in question and answer form, the basic principles of plumbing design and practice. It is therefore especially commended to students in engineering and trade schools, and to master and journeymen plumbers, preparing for examinations. Bound in cloth; 6¾x4¾ inches; 100 pp.; postpaid, $1.00. "Domestic Engineering," Chicago.

Swimming Pools. By. Jno. K. Allen. Their construction; cold and hot water supply; various methods of heating the water; directions as to selecting correct sizes of heaters. A practical guide to the subject. Over thirty illustrations; 6½x4¾ inches. Postpaid, 50 cents. "Domestic Engineering," Chicago.

Tables for Calculating Sizes of Steam Pipes. By Isaac Chaimovitsch. These tables furnish a method of determining sizes of steam pipes for low pressure heating without laborious mathematical calculations; bound in cloth; 4½x6⅞ in.; 47 pp.; postpaid, $2.00. "Domestic Engineering," Chicago.

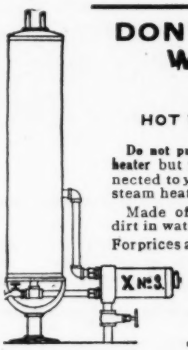
AN ORDER FROM MEXICO

to an advertiser; a highly satisfactory agent secured by another; numerous requests for prices received by several; these live wires show the opportunity for trade extension in Latin America secured through

INGENIERIA

the only Spanish engineering journal printed in the U. S. Copy free on request.

209-213 N. Jefferson St., Chicago



DON'T WASTE STEAM

HOT WATER FREE

Do not put a coil in your steam heater but use an X Heater connected to your range boiler and steam heating plant.

Made of brass, no rust, no dirt in water.

For prices and circulars write to

X No. 3

X Specialty Co.
46 Weir St.,
Taunton, Mass.

A Testimonial

Buffalo, N. Y., April 28, 1909.

Mercantile Label Co., Nashua, N. H.

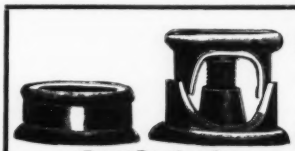
Gentlemen:—We are just in receipt of the third order of your printed labels for shop fitting boxes. Feeling that a letter of reference would be satisfactory to you, we beg to say that your labels are the best we have seen yet. They are very attractive and would be pleased to recommend to any one that might refer to us concerning same.

Yours very truly,

(Signed) The Sullivan & Worthington Co.,
Steam and Hot Water Heating and Ventilating Engineers and Contractors.

Write for Prices

MERCANTILE LABEL CO.
NASHUA, N. H.



Adjustable Radiator Foot Rest

The time saved on each job pays for them—can be used for bath tubs and other fixtures

The Jennison Company, Fitchburg, Mass.

Patent Dec. 8, 1908

Sold by Jobbers